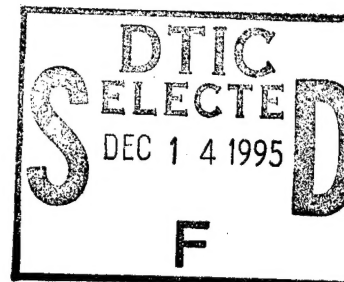


# AIR FORCE HEALTH STUDY

An Epidemiologic Investigation of  
Health Effects in Air Force Personnel  
Following Exposure to Herbicides



## SAIC Team

William D. Grubbs, Ph.D.  
Michael B. Lustik, M.S.  
Amy S. Brockman, M.S.  
Scott C. Henderson, M.S.  
Frank R. Burnett, M.S.  
Rebecca G. Land, M.S.  
Dawn J. Osborne, M.S.  
Vanessa K. Rocconi, B.S.  
Margaret E. Schrieber, B.A.  
David E. Williams, M.D., SCRF

## Air Force Team

Col William H. Wolfe, M.D., M.P.H.  
Joel E. Michalek, Ph.D.  
Col Judson C. Miner, D.V.M., M.P.H.  
Col Gary L. Henriksen, M.D., M.P.H.  
Lt Col James A. Swaby, Ph.D., B.C.E.

Project Manager: Manager E.B. Owens, Ph.D.

Statistical Task Manager: W.D. Grubbs

SAIC Editor: Jean M. Ault, B.A.

Program Manager: R.W. Ogershok

SCIENCE APPLICATIONS INTERNATIONAL  
1710 Goodridge Drive  
McLean, Virginia 22102

in conjunction with:

SCRIPPS CLINIC & RESEARCH FOUNDATION,  
LA JOLLA, CALIFORNIA

NATIONAL OPINION RESEARCH CENTER,  
CHICAGO, ILLINOIS

EPIDEMIOLOGIC RESEARCH DIVISION  
ARMSTRONG LABORATORY  
HUMAN SYSTEMS CENTER (AFMC)  
BROOKS AIR FORCE BASE, TEXAS 78235

2 May 1995

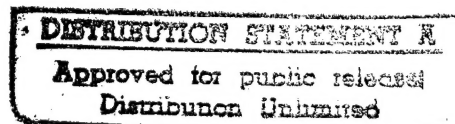
Volume VII

1992 Followup Examination Results

May 1992 to May 1995

Contract Number F41624-91-C-1006  
SAIC Project Number 01-0813-02-3005

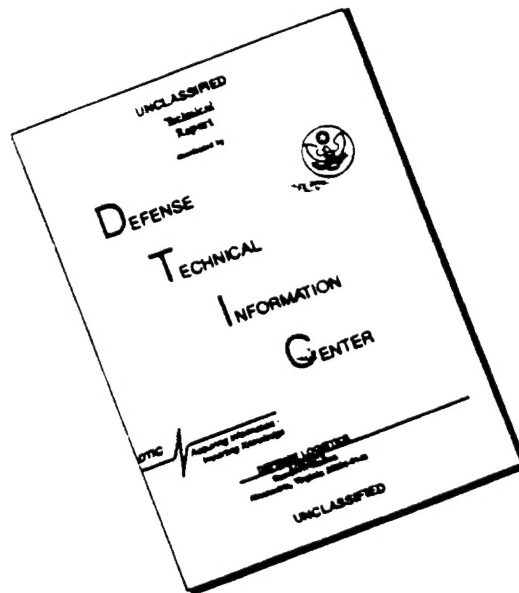
(Distribution Unlimited)



19951212 086

DTIC QUALITY INSPECTED 1

# DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.



## AIR FORCE HEALTH STUDY

### An Epidemiologic Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicides

May 1995

#### Volume VII

#### 1995 Followup Examination Results

Epidemiologic Research Division  
Armstrong Laboratory  
Human Systems Center (AFMC)  
Brooks Air Force Base, Texas 78235

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and / or Special
A-1	

## LIST OF APPENDICES

### VOLUME VII

- APPENDIX A-1. SCRF Policies and Procedures-Dioxin Blood Collection and Dioxin Blood Processing
- APPENDIX A-2. Reanalysis of Malignant Systemic Cancer and Serum Insulin-Inclusion of 174 Additional Dioxin Assays
- APPENDIX B. 1992 Interval Questionnaire
- APPENDIX C. Physical Examination-1992 Examiner's Handbook and Physical Examination Forms
- APPENDIX D. Statistical Methods
- APPENDIX E-1. Dependent Variable-Covariate Associations for the General Health Assessment
- APPENDIX E-2. Interaction Tables for the General Health Assessment
- APPENDIX E-3. General Health Analysis Tables-Occupation Removed from Final Model
- APPENDIX F-1. Dependent Variable-Covariate Associations for the Neoplasia Assessment
- APPENDIX F-2. Interaction Tables for Neoplasia Assessment

## TABLE OF CONTENTS - REPORT

VOLUME I	EXECUTIVE SUMMARY ACKNOWLEDGEMENTS CHAPTER 1 - Introduction CHAPTER 2 - The Dioxin Assay CHAPTER 3 - Questionnaire Methodology CHAPTER 4 - Physical examination Methodology CHAPTER 5 - Study Selection and Participation CHAPTER 6 - Quality Control CHAPTER 7 - Statistical Methods CHAPTER 8 - Covariate Associations with Estimates of Dioxin Exposure CHAPTER 9 - General Health Assessment
VOLUME II	CHAPTER 10 - Neoplasia Assessment CHAPTER 11 - Neurological Assessment
VOLUME III	CHAPTER 12 - Psychological Assessment CHAPTER 13 - Gastrointestinal Assessment
VOLUME IV	CHAPTER 14 - Dermatologic Assessment CHAPTER 15 - Cardiovascular Assessment CHAPTER 16 - Hematologic Assessment
VOLUME V	CHAPTER 17 - Renal Assessment CHAPTER 18 - Endocrine Assessment
VOLUME VI	CHAPTER 19 - Immunologic Assessment CHAPTER 20 - Pulmonary Assessment CHAPTER 21 - Conclusions CHAPTER 22 - Future Directions
VOLUME VI	APPENDIX A - 1 through F-2
VOLUME VII	APPENDIX G - 1 through I-4
VOLUME IX	APPENDIX J - 1 through N-4
VOLUME X	APPENDIX 0 - 1 through R

**APPENDIX A-1.**

**SCRF Policies and Procedures: Dioxin Blood Collection and Dioxin Blood Processing**



DEPARTMENT NAME:	CLINICAL PATHOLOGY	P. P. NUMBER	ISSUE DATE:
TITLE:	AIR FORCE HEALTH STUDY - DIOXIN BLOOD COLLECTION	REVISION DATE: 8/5/87	PAGE 1 OF 4

To collect blood samples for dioxin testing in accordance with Center for Disease Control standards.

Applies to all Air Force Health Study participants.

- 3.1 Blood-pack unit without anticoagulant - 600 ml
- 3.2 Alcohol swabs
- 3.3 Sepps
- 3.4 Sterile gauze
- 3.5 Adhesive tape
- 3.6 Balance
- 3.7 Coban
- 3.8 Unit holders

4.1 On the second day of the study, blood is drawn from patient with a 15 gauge needle into a blood pack unit without anti-coagulant.

4.1.1 Blood pack units have been previously tested by the CDC for Dioxin contamination.

Reviewed By/Date: <i>[Signature]</i> 6/87	Reviewed By/Date:	Reviewed By/Date:	Reviewed By/Date:
Reviewed By/Date:	Reviewed By/Date:	Reviewed By/Date:	Reviewed By/Date:



# POLICIES & PROCEDURES

Scripps Clinic

P. P. NUMBER

PAGE 2 OF 4

TITLE: CLINICAL PATHOLOGY  
AIR FORCE HEALTH STUDY - DIOXIN BLOOD COLLECTION

- 4.2 Patients who have immunology studies have 250 ml of blood drawn. Patients not having immunology studies have 350 ml of blood drawn.
- 4.3 Select site for venipuncture.
  - 4.3.1 On patients who have not yet had their physical exam, the dominant arm is preferred.
- 4.4 Prepare site for venipuncture in accordance with CDC standards.
- 4.5 Perform venipuncture and securely tape needle and tubing to arm.
- 4.6 Blood is collected into unit bag.
  - 4.6.1 Amount of blood collected is determined by weighing sample on a balance.
  - 4.6.2 For 280 ml of blood, set balance at 320 gms  
For 350 ml of blood, set balance at 390 gms
  - 4.6.3 When amount needed is obtained clamp tubing with hemostat.
- 4.7 Remove needle from vein
- 4.8 Have patient apply pressure to site for several minutes.
- 4.9 Apply pressure bandage to site using gauge and Coban.
  - 4.9.1 Instruct patient not to remove bandage for at least 30 - 45 minutes.



# POLICIES & PROCEDURES

scripps Clinic

P. P. NUMBER

PAGE 3 OF 4

TITLE:

CLINICAL PATHOLOGY  
AIR FORCE HEALTH STUDY - DIOXIN BLOOD COLLECTION

4.10 Clamp tubing twice with hand sealer and clips.

4.10.1 Cut tubing and discard

4.10.2 Dispose of needle in needle container

4.11 Label unit bag with pre-printed label.

4.11.1 Write time drawn and initials on label

4.11.2 Place label on plastic portion of unit pack

4.12 Place unit bag upright in vertical holder.

4.12.1 Vertical holders are numbered 1-37.

4.12.2 Units are placed in holders according to  
order of draw.

4.12.3 Units are to remain upright at room temperature  
and allowed to clot for at least 7 hours.

## 5.0 SHORT DRAWS

5.1 In the event of a short draw, unit pack is to be weighed and the amount of blood noted on the unit label. "Short draw" should also be written on label in large letters.

## 6.0 MULTIPLE VENIPUNCTURES

6.1 If unable to collect sample with one venipuncture, ask patient if he is willing to be drawn again. If patient is willing start procedure from beginning.



# POLICIES & PROCEDURES

Scripps Clinic

P. P. NUMBER

PAGE 4 OF 4

TITLE: CLINICAL PATHOLOGY  
AIR FORCE HEALTH STUDY - DIOXIN BLOOD COLLECTION

6.2 If patient is unwilling to be redrawn, notify the nurse coordinator and Air Force monitor.

6.2.1 Save labels and have test credited.

## 7.0 MAILING OF SAMPLES

7.1 Frozen samples are mailed twice weekly to Brooks AFB, TX via Airborne Overnight Service.

7.2 Mailing boxes are placed in styrofoam shipping tape.

7.2.1 10 - 15 lbs of dry ice is packed around mailing boxes.

7.3 CDC shipping list is placed on top of styrofoam lid and beneath cardboard box lid.

7.4 Cardboard box is sealed with strapping tape.

7.5 Address label, dry ice label and "this side up" label are placed on box.

7.6 Mailing requisition is filled out and taken with shippers to shipping department.

c:\afhs\dioxcoll.bld





# POLICIES & PROCEDURES

Scripps Clinic and Research Foundation — Clinic

DEPARTMENT NAME: SPECIMEN PROCESSING	P.P. NUMBER	ISSUE DATE
TITLE AIR FORCE HEALTH STUDY - DIOXIN BLOOD PROCESSING	REVISION DATE	PAGE OF

- 1.0 PURPOSE: To process blood samples for dioxin testing using Center for Disease Control Standards as a guideline.
- 2.0 SCOPE: Applies to Clinical Pathology Medical Technicians involved in processing dioxin samples.
- 3.0 MATERIALS:
  - 3.1 Transfer pack units - 300ml
  - 3.2 Plasma transfer set
  - 3.3 Plasma extractor
  - 3.4 Vertical unit holders
  - 3.5 Vertical unit holder boxes
  - 3.6 Teflon lined lids
  - 3.7 Teflon stoppers
  - 3.8 Aluminum sealing caps
  - 3.9 Aluminum cap sealer
  - 3.10 Centrifuge bags
  - 3.11 Handsealer/stripper
  - 3.12 Shipping list
  - 3.13 Wheaton bottles
    - 3.13.1 5ml, 10ml, 120ml
  - 3.14 Styrofoam mailing boxes
  - 3.15 Dry ice
- 4.0 PROCEDURE:
  - 4.1 On the specific day the blood is drawn for dioxins, the units will be brought from the blood drawing station to specimen processing and allowed to clot, upright in their unit holders, at room temperature for a total of 7 hours.
  - 4.2 Shipping list:
    - 4.2.1 The shipping list is a modified version of the list provided by the CDC.
    - 4.2.2 Shipping list is prepared as follows: remove top left section of patient's label from unit bag and place sequentially on shipping list.
    - 4.2.3 Specify any deviations from collection, storage and shipment protocols, and date of occurrence.
  - 4.3 Centrifuging of unit bags
    - 4.3.1 Set temperature on floor model blood bank centrifuge between 4-10°C.

A-1-6

APPROVED BY: <i>Richard C. Thompson, M.D.</i> Feb 20 1992	POSITION: <i>Laboratory Director</i>
APPROVED BY:	POSITION:



# POLICIES & PROCEDURES

Scripps Clinic and Research Foundation — Clinic

DEPARTMENT NAME: SPECIMEN PROCESSING	P.P. NUMBER	ISSUE DATE
TITLE AIR FORCE HEALTH STUDY-DIOXIN BLOOD PROCESSING	REVISION DATE	PAGE      OF

- 4.3.2 Unit bags are centrifuged in the order they are drawn.
- 4.3.3 The units of blood are place inside plastic centrifuge bags and then into the centrifuge cups.
  - 4.3.3.1 The centrifuge cups are then balanced on the blood bank balance.
  - 4.3.3.2 Place two cups on the balance. If one centrifuge cup and associated unit of blood is heavier than the other, place small rubber stoppers into the centrifuge cups until units are balanced.
- 4.3.4 Centrifuge cups are placed into the centrifuge and spun for 15 minutes at 4500 rpms.
- 4.3.5 Balance next group of unit bags for centrifuging.
- 4.4 Transfer of serum from unit bags to transfer packs.
  - 4.4.1 Label transfer packs with patients aliquot label.
  - 4.4.2 Labeled transfer packs are place in vertical unit holders in the sequence they are to be transferred.
  - 4.4.3 Serum is transferred from the spun unit bag to the transfer pack by plasma extractor.
    - 4.4.3.1 Place the unit bag on the plasma extractor with side not containing manufacturers label toward you.
    - 4.4.3.2 Remove coupler cover of transfer pack unit.
    - 4.4.3.3 Expose outlet port of blood pack unit.
    - 4.4.3.4 Insert coupler into outlet port.
    - 4.4.3.5 Release handle of plasma extractor and express the serum into the transfer pack. Do not allow red cells to enter the transfer pack. It is important to transfer the predominant amount of serum while preventing red cell contamination.
    - 4.4.3.6 When the desired amount of serum is transferred, release the plasma extractor and clamp the tubing between the blood bag and the transfer pack using a hemostat clamp.

A-1-7

APPROVED BY:

*RCM*

POSITION:

APPROVED BY:

POSITION:



# POLICIES & PROCEDURES

Scripps Clinic and Research Foundation — Clinic

DEPARTMENT NAME: SPECIMEN PROCESSING	P.P. NUMBER	ISSUE DATE
TITLE AIR FORCE HEALTH STUDY - DIOXIN BLOOD PROCESSING	REVISION DATE	PAGE OF

- 4.4.3.7 Seal the transfer tubing in 2 spots 1 inch apart using the Fenwal Hematron electronic sealer and severe tubing between seals.
- 4.4.4 Transfer packs containing serum and any unit bags that need to be respun are placed in unsequential vertical unit holders and placed in vertical holder boxes.
- 4.4.5 Spinning of transfer packs.
  - 4.4.5.1 Six units of serum in transfer packs will be spun at one time.
  - 4.4.5.2 Transfer packs are to be spun a 4-10°C for 15 minutes at 4500 rpm in the floor model blood bank centrifuge.
- 4.5 Transfer of serum from transfer packs to Wheaton bottles.
  - 4.5.1 Wheaton bottles are labeled with patient aliquot labels.
    - 4 oz Wheaton bottle S1 Serum dioxin
    - 5 ml Wheaton bottle S3 Lipid profile
    - 10 ml Wheaton bottle S4 Serum reserve
    - 4 oz Wheaton bottle S2 serum dioxin
  - 4.5.1.1 Insert the sharp end into one of the outlet ports in top of the bag.
  - 4.5.1.2 Close tubing with thumb roller on tubing.
  - 4.5.1.3 Press bag with plasma extractor
  - 4.5.1.4 Hold open end of tubing over prelabeled Wheaton bottles.
  - 4.5.1.5 Open tubing and put 5ml serum in "S3" bottle, 10ml in "S4" and divide the rest into the 4 oz bottles "S1" and "S2".
  - 4.5.1.6 Extract only the serum being careful that cells do not enter the bottle. Recap and tighten.
  - 4.5.1.7 Log in the serum samples and store at -20°C or less until shipment.
- 5.0 SHORT DRAWS:
  - 5.1 In the event of a short draw, the participant involved maybe drawn again thus having 2 smaller units. The units from these should be treated as all the others with regard to processing. Also, when

A-1-8

APPROVED BY: <i>Rey</i>	POSITION:
APPROVED BY:	POSITION:



# POLICIES & PROCEDURES

Scripps Clinic and Research Foundation — Clinic

DEPARTMENT NAME: SPECIMEN PROCESSING	P.P. NUMBER	ISSUE DATE
TITLE AIR FORCE HEALTH STUDY - DIOXIN BLOOD PROCESSING	REVISION DATE	PAGE OF

aliquoting serum into the Wheaton bottles they may be pooled from both units.

## 6.0 MAILING OF SAMPLES:

- 6.1 Frozen samples are mailed twice weekly to Brookes AFB, TX via Airborne overnight mail.
- 6.2 Specimens are placed in styrofoam shipping boxes.
  - 6.2.1 10-15lbs of dry ice is packed around the specimens.
- 6.3 A CDC shipping list is placed on top of the styrofoam lid and beneath the cardboard box lid.
- 6.4 Cardboard box is sealed with strapping tape.
- 6.5 Address label, dry ice label and "This side up" label are placed on box.
- 6.6 Mailing requisition is filled out and taken with shipper to shipping department.

AFHS\DXNPRCC.BB

A-1-9

APPROVED BY:

POSITION:

APPROVED BY:

POSITION:

## **APPENDIX A-2.**

### **Reanalysis of Malignant Systemic Cancer and Serum Insulin Inclusion of 174 Additional Dioxin Assays**

**Table A-2-1.**  
**Comparison of Analyses for Malignant Systemic Neoplasms**

Model	Analysis	Cohort	Chapter 10 (Table 10-16)	Analysis with Additional Data (Table A-2-3)
			Relative Risk (p-Value)	Relative Risk (p-Value)
2	Unadjusted	RH: Current Dioxin > 10 ppt	0.63 (0.004)	0.62 (0.004)
	Adjusted	RH: Current Dioxin > 10 ppt	0.72 (0.073)	0.76 (0.139)
3	Unadjusted	Background RH (vs. Comparisons)	1.03 (0.914)	1.06 (0.832)
		Low RH (vs. Comparisons)	1.87 (0.024)	1.96 (0.013)
		High RH (vs. Comparisons)	0.67 (0.309)	0.68 (0.327)
		Low + High RH (vs. Comparisons)	1.26 (0.356)	1.30 (0.285)
	Adjusted	Background RH (vs. Comparisons)	0.94 (0.834)	0.96 (0.891)
		Low RH (vs. Comparisons)	1.72 (0.060)	1.78 (0.041)
		High RH (vs. Comparisons)	0.90 (0.801)	0.90 (0.783)
		Low + High RH (vs. Comparisons)	1.37 (0.220)	1.39 (0.183)
4	Unadjusted	All Ranch Hands w/ Current Dioxin	0.94 (0.585)	0.95 (0.599)
	Adjusted	All Ranch Hands w/ Current Dioxin	1.06 (0.537)	1.06 (0.620)
5	Unadjusted	All Ranch Hands w/ Current Dioxin	0.99 (0.872)	0.99 (0.899)
	Adjusted	All Ranch Hands w/ Current Dioxin	1.10 (0.359)	1.09 (0.411)
6	Unadjusted	All Ranch Hands w/ Current Dioxin	0.95 (0.585)	0.95 (0.604)
	Adjusted	All Ranch Hands w/ Current Dioxin	1.08 (0.506)	1.06 (0.606)

**Table A-2-2.**  
**Comparison of Analyses for Serum Insulin (Continuous, Nondiabetics)**

Model	Analysis	Cohort		Chapter 18 (Table 18-40)	Analysis with Additional Data (Table A-2-5)
				Difference of Means or Slope (p-Value)	Difference of Means or Slope (p-Value)
2	Unadjusted	RH: Curr. Dioxin > 10 ppt	(Slope)	0.0639 (0.048)	0.0612 (0.058)
	Adjusted	RH: Curr. Dioxin > 10 ppt	(Slope)	0.0729 (0.035)	0.0726 (0.036)
3	Unadjusted	Background RH (vs. Comparisons)		-4.58 (0.170)	-3.86 (0.228)
		Low RH (vs. Comparisons)		-0.12 (0.977)	0.49 (0.905)
		High RH (vs. Comparisons)		7.48 (0.083)	6.70 (0.108)
		Low + High RH (vs. Comparisons)		3.61 (0.266)	3.61 (0.253)
	Adjusted	Background RH (vs. Comparisons)		-2.56 (0.365)	-2.46 (0.362)
		Low RH (vs. Comparisons)		-1.61 (0.631)	-1.81 (0.585)
		High RH (vs. Comparisons)		5.97 (0.104)	4.89 (0.168)
		Low + High RH (vs. Comparisons)		2.10 (0.437)	1.54 (0.558)
4	Unadjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.1259 (<0.001)	0.1205 (<0.001)
	Adjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.0529 (0.025)	0.0453 (0.048)
5	Unadjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.1263 (<0.001)	0.1200 (<0.001)
	Adjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.0646 (0.001)	0.0568 (0.003)
6	Unadjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.0960 (<0.001)	0.0930 (<0.001)
	Adjusted	All Ranch Hands w/ Curr. Dioxin	(Slope)	0.0351 (0.092)	0.0282 (0.160)

**Table A-2-3.**  
**Analysis of Malignant Systemic Neoplasms**

<b>a) MODEL 1: RANCH HANDS VS. COMPARISONS — UNADJUSTED</b>					
<b>Occupational Category</b>	<b>Group</b>	<b>n</b>	<b>Percent Yes</b>	<b>Est. Relative Risk (95% C.I.)</b>	<b>p-Value</b>
<i>All</i>	<i>Ranch Hand</i>	<i>943</i>	<i>5.0</i>	<i>1.17 (0.78,1.74)</i>	<i>0.507</i>
	<i>Comparison</i>	<i>1,280</i>	<i>4.3</i>		
Officer	Ranch Hand	361	6.1	0.95 (0.54,1.67)	0.980
	Comparison	502	6.4		
Enlisted Flyer	Ranch Hand	160	8.1	1.54 (0.67,3.54)	0.414
	Comparison	203	5.4		
Enlisted Groundcrew	Ranch Hand	422	2.8	1.37 (0.61,3.09)	0.575
	Comparison	575	2.1		

<b>b) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED</b>			
<b>Occupational Category</b>	<b>Adj. Relative Risk (95% C.I.)</b>	<b>p-Value</b>	<b>Covariate Remarks<sup>a</sup></b>
<i>All</i>	<i>1.16 (0.77,1.75)</i>	<i>0.479</i>	AGE (p<0.001) PACKYR (p=0.051)
Officer	0.94 (0.53,1.66)	0.820	
Enlisted Flyer	1.51 (0.65,3.52)	0.340	
Enlisted Groundcrew	1.37 (0.60,3.14)	0.454	

<sup>a</sup> Covariates and associated p-values correspond to final model based on all participants with available data.



**Table A-2-3. (Continued)**  
**Analysis of Malignant Systemic Neoplasms**

c) MODEL 2: RANCH HANDS — INITIAL DIOXIN — UNADJUSTED				
Initial Dioxin Category Summary Statistics			Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>a</sup>	
Initial Dioxin	n	Percent Yes	Estimated Relative Risk (95% C.I.) <sup>b</sup>	p-Value
Low	171	7.0	0.62 (0.44,0.88)	0.004
Medium	176	8.0		
High	177	1.7		

d) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED				
Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>c</sup>				
n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks	
524	0.76 (0.52,1.11)**	0.139**	INIT*PACKYR (p=0.012)	
			AGE (p<0.001)	
			DC (p=0.143)	

<sup>a</sup> Adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>b</sup> Relative risk for a twofold increase in initial dioxin.

<sup>c</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

\*\* Log<sub>2</sub> (initial dioxin)-by-covariate interaction (0.01 < p ≤ 0.05); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table A-2-4 for further analysis of this interaction.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.  
 INIT = Log<sub>2</sub> (initial dioxin).

**Table A-2-3. (Continued)**  
**Analysis of Malignant Systemic Neoplasms**

<b>e) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — UNADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Percent Yes</b>	<b>Est. Relative Risk (95% C.I.)<sup>ab</sup></b>	<b>p-Value</b>
Comparison	1,199	4.1		
Background RH	398	4.0	1.06 (0.60,1.91)	0.832
Low RH	256	8.2	1.96 (1.15,3.35)	0.013
High RH	268	3.0	0.68 (0.32,1.47)	0.327
Low plus High RH	524	5.5	1.30 (0.81,2.09)	0.285

<b>f) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>ac</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
Comparison	1,197			AGE (p<0.001) PACKYR (p=0.117)
Background RH	397	0.96 (0.53,1.74)	0.891	
Low RH	256	1.78 (1.02,3.09)	0.041	
High RH	268	0.90 (0.41,1.96)	0.783	
Low plus High RH	524	1.39 (0.85,2.28)	0.183	

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>c</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq$  10 ppt.

Background (Ranch Hand): Current Dioxin  $\leq$  10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin  $\leq$  143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table A-2-3. (Continued)**  
**Analysis of Malignant Systemic Neoplasms**

g) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — UNADJUSTED					
Model <sup>a</sup>	Current Dioxin Category Percent Yes/(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
	Low	Medium	High	Est. Relative Risk (95% C.I.) <sup>b</sup>	p-Value
4	3.8 (317)	8.0 (299)	2.9 (306)	0.95 (0.77,1.16)	0.599
5	4.5 (314)	5.6 (302)	4.6 (306)	0.99 (0.83,1.18)	0.899
6 <sup>c</sup>	4.5 (313)	5.6 (302)	4.6 (306)	0.95 (0.79,1.15)	0.604

h) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
Model <sup>a</sup>	Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks
4	921	1.06 (0.84,1.35)**	0.620**	CURR*DC (p=0.014) AGE (p<0.001) PACKYR (p=0.084)
5	921	1.09 (0.89,1.33)**	0.411**	CURR*PACKYR (p=0.037) CURR*DC (p=0.022) AGE (p<0.001)
6 <sup>d</sup>	920	1.06 (0.85,1.31)**	0.606**	CURR*PACKYR (p=0.036) CURR*DC (p=0.021) AGE (p<0.001)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).  
Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).  
Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

<sup>c</sup> Adjusted for log<sub>2</sub> total lipids.

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

\*\* Log<sub>2</sub> (current dioxin + 1)-by-covariate interaction (0.01 < p ≤ 0.05); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table A-2-4 for further analysis of this interaction.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.  
Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.  
CURR = Log<sub>2</sub> (current dioxin + 1).

**Table A-2-4.**  
**Interaction Table for Malignant Systemic Neoplasms**

<b>a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED</b> (Initial Dioxin-by-Lifetime Cigarette Smoking History: Table A-2-3)					
<b>Initial Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Initial Dioxin)</b>	
<b>Stratum</b>	<b>Initial Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>0 pack-years</b>	Low	45	8.9	0.29 (0.07,1.20)	0.088
	Medium	39	2.6		
	High	54	0.0		
<b>&gt;0-10 pack-years</b>	Low	50	8.0	0.47 (0.18,1.22)	0.122
	Medium	45	2.2		
	High	69	1.5		
<b>&gt;10 pack-years</b>	Low	76	5.3	1.04 (0.67,1.60)	0.864
	Medium	92	13.0		
	High	54	3.7		

<b>b) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table A-2-3)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	165	1.8	1.53 (1.07,2.19)	0.020
	Medium	112	11.6		
	High	65	4.6		
<b>Yes</b>	Low	151	6.0	0.84 (0.62,1.14)	0.270
	Medium	187	5.9		
	High	241	2.5		

**Table A-2-4. (Continued)**  
**Interaction Table for Malignant Systemic Neoplasms**

c) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Lifetime Cigarette Smoking History: Table A-2-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
0 pack-years	Low	89	4.5	0.81 (0.49,1.33)	0.399
	Medium	82	6.1		
	High	79	1.3		
>0-10 pack-years	Low	101	1.0	0.99 (0.61,1.62)	0.980
	Medium	79	6.3		
	High	105	1.0		
>10 pack-years	Low	124	7.3	1.20 (0.93,1.55)	0.171
	Medium	140	5.0		
	High	122	9.8		

d) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Degreasing Chemical Exposure: Table A-2-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Low	156	2.6	1.45 (1.05,1.99)	0.023
	Medium	120	7.5		
	High	66	9.1		
Yes	Low	158	6.3	0.92 (0.72,1.18)	0.496
	Medium	181	4.4		
	High	240	3.3		

**Table A-2-4. (Continued)**  
**Interaction Table for Malignant Systemic Neoplasms**

e) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Lifetime Cigarette Smoking History: Table A-2-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
0 pack-years	Low	89	4.5	0.79 (0.48,1.32)	0.371
	Medium	82	6.1		
	High	79	1.3		
>0-10 pack-years	Low	101	1.0	0.98 (0.60,1.60)	0.938
	Medium	79	6.3		
	High	105	1.0		
>10 pack-years	Low	123	7.3	1.17 (0.88,1.54)	0.276
	Medium	140	5.0		
	High	122	9.8		

f) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Degreasing Chemical Exposure: Table A-2-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Low	156	2.6	1.41 (1.01,1.96)	0.042
	Medium	120	7.5		
	High	66	9.1		
Yes	Low	157	6.4	0.89 (0.68,1.16)	0.390
	Medium	181	4.4		
	High	240	3.3		

<sup>a</sup> Relative risk for a twofold increase in initial dioxin.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 2: Low = 39-98 ppt; Medium = > 98-232 ppt; High = > 232 ppt.  
 Model 4: Low = ≤ 8.1 ppt; Medium = > 8.1-20.5 ppt; High = >20.5 ppt.  
 Models 5 and 6: Low = ≤ 46 ppq; Medium = > 46-128 ppq; High = > 128 ppq.

**Table A-2-5.**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

<b>a) MODEL 1: RANCH HANDS VS. COMPARISONS — UNADJUSTED</b>					
<b>Occupational Category</b>	<b>Group</b>	<b>n</b>	<b>Mean<sup>ab</sup></b>	<b>Difference of Means (95% C.I.)<sup>c</sup></b>	<b>p-Value<sup>d</sup></b>
<i>All</i>	<i>Ranch Hand</i>	808	73.88	-0.29 --	0.923
	<i>Comparison</i>	1,098	74.17		
Officer	Ranch Hand	310	69.90	3.83 --	0.374
	Comparison	444	66.07		
Enlisted Flyer	Ranch Hand	137	75.63	-9.64 --	0.225
	Comparison	166	85.27		
Enlisted Groundcrew	Ranch Hand	361	74.29	-1.70 --	0.703
	Comparison	488	75.99		

b) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED						
Occupational Category	Group	n	Adj. Mean <sup>ab</sup>	Difference of Adj. Means (95% C.I.) <sup>c</sup>	p-Value <sup>d</sup>	Covariate Remarks <sup>e</sup>
<i>All</i>	<i>Ranch Hand</i>	794	58.55**	<i>-0.08 -- **</i>	<i>0.968**</i>	GROUP*BFAT (p=0.017) AGE (p<0.001) FAST (p=0.597) RACE*OCC (p=0.024) RACE*PERS (p=0.029) PERS*FAMDIAB (p=0.037)
	<i>Comparison</i>	1,081	58.64**			
Officer	Ranch Hand	306	64.42**	2.61 -- **	0.463**	
	Comparison	441	61.81**			
Enlisted Flyer	Ranch Hand	134	48.88**	7.34 -- **	0.113**	
	Comparison	163	56.22**			
Enlisted Groundcrew	Ranch Hand	354	60.47**	0.65 -- **	0.839**	
	Comparison	477	59.82**			

<sup>a</sup> Transformed from the natural logarithm scale.

<sup>b</sup> Adjusted for fasting status.

<sup>c</sup> Difference of means after transformation to original scale; confidence interval on difference of means not presented because analysis was performed on natural logarithm scale.

<sup>d</sup> P-values based on difference of means on natural logarithm scale.

<sup>e</sup> Covariates and associated p-values correspond to final model based on all participants with available data.

\*\* Group-by-covariate interaction (0.01 < p ≤ 0.05); adjusted mean, difference of adjusted means, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table A-2-6 for further analysis of this interaction.



**Table A-2-5. (Continued)**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

c) MODEL 2: RANCH HANDS — INITIAL DIOXIN — UNADJUSTED						
Initial Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>b</sup>		
Initial Dioxin	n	Mean <sup>a</sup>	Adj. Mean <sup>ab</sup>	R <sup>2</sup>	Slope (Std. Error) <sup>c</sup>	p-Value
Low	143	70.29	72.62	0.119	0.0612 (0.0321)	0.058
Medium	145	73.47	75.33			
High	143	86.39	81.53			

d) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED						
Initial Dioxin Category Summary Statistics			Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>d</sup>			
Initial Dioxin	n	Adj. Mean <sup>ad</sup>	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
Low	143	66.87	0.270	0.0726 (0.0344)	0.036	AGE*BFAT (p=0.010) BFAT*OCC (p=0.038)
Medium	145	72.41				
High	143	81.54				

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>c</sup> Slope and standard error based on natural logarithm of serum insulin versus log<sub>2</sub> (initial dioxin).

<sup>d</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.



**Table A-2-5. (Continued)**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

e) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — UNADJUSTED					
Dioxin Category	n	Mean <sup>ab</sup>	Adj. Mean <sup>ac</sup>	Difference of Adj. Mean vs. Comparisons (95% C.I.) <sup>d</sup>	p-Value <sup>e</sup>
Comparison	1,031	76.85	66.88		
Background RH	357	66.69	63.02	-3.86 --	0.228
Low RH	210	79.17	67.37	0.49 --	0.905
High RH	221	92.92	73.58	6.70 --	0.108
Low plus High RH	431	86.22	70.49	3.61 --	0.253

f) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED					
Dioxin Category	n	Adj. Mean <sup>af</sup>	Difference of Adj. Mean vs. Comparisons (95% C.I.) <sup>d</sup>	p-Value <sup>e</sup>	Covariate Remarks
Comparison	1,014	58.10**			DXCAT*AGE (p=0.037) FAST (p=0.417)
Background RH	354	55.64**	-2.46 -- **	0.362**	RACE*OCC (p=0.007)
Low RH	204	56.29**	-1.81 -- **	0.585**	OCC*PERS (p=0.015)
High RH	216	62.99**	4.89 -- **	0.168**	PERS*FAMDIAB (p=0.045)
Low plus High RH	420	59.64**	1.54 -- **	0.558**	

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Adjusted for fasting status.

<sup>c</sup> Adjusted for fasting status, percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>d</sup> Difference of adjusted means after transformation to original scale; confidence interval on difference of adjusted means not presented because analysis was performed on natural logarithm scale.

<sup>e</sup> P-value is based on difference of means on natural logarithm scale.

<sup>f</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

\*\* Categorized dioxin-by-covariate interaction ( $0.01 < p \leq 0.05$ ); adjusted mean, difference of adjusted means, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table A-2-6 for further analysis of this interaction.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq$  10 ppt.

Background (Ranch Hand): Current Dioxin  $\leq$  10 ppt.

Low (Ranch Hand): Current Dioxin  $>$  10 ppt, 10 ppt  $<$  Initial Dioxin  $\leq$  143 ppt.

High (Ranch Hand): Current Dioxin  $>$  10 ppt, Initial Dioxin  $>$  143 ppt.

DXCAT = Categorized Dioxin.

**Table A-2-5. (Continued)**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

g) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — UNADJUSTED						
Model <sup>c</sup>	Current Dioxin Category Mean <sup>ab</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)		
	Low	Medium	High	R <sup>2</sup>	Slope (Std. Error) <sup>d</sup>	p-Value
4	36.33 (290)	43.66 (246)	52.10 (252)	0.041	0.1205 (0.0213)	<0.001
5	35.89 (290)	44.27 (251)	54.34 (247)	0.054	0.1200 (0.0183)	<0.001
6 <sup>e</sup>	38.00 (289)	44.48 (251)	51.31 (247)	0.081	0.0930 (0.0191)	<0.001

h) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
Model <sup>c</sup>	Current Dioxin Category Adjusted Mean <sup>a</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	Low	Medium	High	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>d</sup>	p-Value	Covariate Remarks
4	34.67 (287)	34.31 (241)	40.12 (246)	0.272	0.0453 (0.0228)	0.048	AGE (p<0.001) PERS (p=0.122) BFAT (p<0.001) FAST (p=0.108) OCC*FAMDIAB (p=0.010)
5	34.41 (288)	35.33 (245)	41.66 (241)	0.277	0.0568 (0.0194)	0.003	AGE (p<0.001) PERS (p=0.120) BFAT (p<0.001) FAST (p=0.120) OCC*FAMDIAB (p=0.010)
6 <sup>f</sup>	36.41 (287)	35.63 (245)	39.18 (241)	0.312	0.0282 (0.0201)	0.160	AGE (p<0.001) PERS (p=0.044) BFAT (p<0.001) FAST (p=0.123) OCC*FAMDIAB (p=0.010)

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Adjusted for fasting status.

<sup>c</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>d</sup> Slope and standard error based on natural logarithm of serum insulin versus log<sub>2</sub> (current dioxin + 1).

<sup>e</sup> Adjusted for log<sub>2</sub> total lipids.

<sup>f</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table A-2-6.**  
**Interaction Table for Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

a) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED (Group-by-Body Fat: Table A-2-5)						
Stratum	Occupational Category	Group	n	Adjusted Mean <sup>a</sup>	Difference of Adjusted Means (95% C.I.) <sup>b</sup>	p-Value <sup>c</sup>
<i>Obese: &gt;25%</i>	<i>All</i>	<i>Ranch Hand</i>	<i>175</i>	<i>117.03</i>	<i>17.32 --</i>	<i>0.043</i>
		<i>Comparison</i>	<i>243</i>	<i>99.71</i>		
<i>Lean or Normal: ≤25%</i>	<i>All</i>	<i>Ranch Hand</i>	<i>619</i>	<i>55.96</i>	<i>-3.19 --</i>	<i>0.189</i>
		<i>Comparison</i>	<i>838</i>	<i>59.15</i>		
<i>Obese: &gt;25%</i>	Officer	Ranch Hand	59	135.02	29.48 --	0.066
		Comparison	89	105.54		
	Enlisted Flyer	Ranch Hand	28	105.19	16.27 --	0.400
		Comparison	37	88.92		
	Enlisted Groundcrew	Ranch Hand	88	115.32	10.63 --	0.390
		Comparison	117	104.69		
<i>Lean or Normal: ≤25%</i>	Officer	Ranch Hand	247	63.64	0.67 --	0.874
		Comparison	352	62.98		
	Enlisted Flyer	Ranch Hand	106	43.22	-10.82 --	0.033
		Comparison	126	54.03		
	Enlisted Groundcrew	Ranch Hand	266	58.34	-3.24 --	0.400
		Comparison	360	61.58		

**Table A-2-6. (Continued)**  
**Interaction Table for Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**

<b>b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> (Dioxin Category-by-Age: Table A-2-5)					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Adjusted Mean<sup>a</sup></b>	<b>Difference of Adjusted Mean vs. Comparisons (95% C.I.)<sup>b</sup></b>	<b>p-Value<sup>c</sup></b>
<b>Born ≥1942</b>	Comparison	467	47.57		
	Background RH	133	42.00	-5.57 --	0.099
	Low RH	80	45.54	-2.03 --	0.636
	High RH	136	49.83	2.26 --	0.535
	Low plus High RH	216	48.20	0.63 --	0.834
<b>Born &lt;1942</b>	Comparison	547	64.30		
	Background RH	221	64.36	0.06 --	0.989
	Low RH	124	63.31	-0.99 --	0.837
	High RH	80	71.96	7.66 --	0.227
	Low plus High RH	204	66.57	2.27 --	0.583

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Difference of means after transformation to original scale; confidence interval on difference of means not presented because analysis was performed on natural logarithm scale.

<sup>c</sup> P-value is based on difference of means on natural logarithm scale.

Note: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table A-2-7.**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**  
**Occupation and Body Fat Removed from Final Model**

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED						
Initial Dioxin Category Summary Statistics			Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>b</sup>			
Initial Dioxin	n	Adj. Mean <sup>ab</sup>	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
Low	143	69.02	0.154	0.0969 (0.0327)	0.003	AGE (p < 0.001)
Medium	145	74.34				
High	143	86.93				

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

<sup>c</sup> Slope and standard error based on natural logarithm of serum insulin versus log<sub>2</sub> (initial dioxin).

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

**Table A-2-7. (Continued)**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**  
**Occupation and Body Fat Removed from Final Model**

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED					
Dioxin Category	n	Adj. Mean <sup>ab</sup>	Difference of Adj. Mean vs. Comparisons (95% C.I.) <sup>c</sup>	p-Value <sup>d</sup>	Covariate Remarks
Comparison	1,014	66.71**			DXCAT*AGE (p=0.037) RACE (p=0.833) FAST (p=0.869) PERS*FAMDIAB (p=0.107)
Background RH	354	61.62**	-5.09 -- **	0.103**	
Low RH	204	66.98**	0.27 -- **	0.946**	
High RH	216	76.42**	9.71 -- **	0.022**	
Low plus High RH	420	71.68**	4.97 -- **	0.115**	

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

<sup>c</sup> Difference of adjusted means after transformation to original scale; confidence interval on difference of adjusted means not presented because analysis was performed on natural logarithm scale.

<sup>d</sup> P-value is based on difference of means on natural logarithm scale.

\*\* Categorized dioxin-by-covariate interaction ( $0.01 < p \leq 0.05$ ); adjusted mean, difference of adjusted means, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table A-2-8 for further analysis of this interaction.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq$  10 ppt.

Background (Ranch Hand): Current Dioxin  $\leq$  10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin  $\leq$  143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table A-2-7. (Continued)**  
**Analysis of Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**  
**Occupation and Body Fat Removed from Final Model**

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
Model <sup>b</sup>	Current Dioxin Category Adjusted Mean <sup>a</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	Low	Medium	High	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
4	34.57 (287)	41.39 (241)	54.38 (246)	0.095	0.1485 (0.0215)	<0.001	AGE (p<0.001) FAMDIAB (p=0.489) PERS (p=0.389) FAST (p=0.249)
5	34.26 (288)	41.22 (245)	56.41 (241)	0.107	0.1402 (0.0183)	<0.001	AGE (p<0.001) FAMDIAB (p=0.526) PERS (p=0.352) FAST (p=0.256)
6 <sup>d</sup>	36.18 (287)	42.65 (245)	53.62 (241)	0.126	0.1158 (0.0192)	<0.001	AGE (p<0.001) FAMDIAB (p=0.576) PERS (p=0.201) FAST (p=0.263)

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>c</sup> Slope and standard error based on natural logarithm of serum insulin versus log<sub>2</sub> (current dioxin + 1).

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table A-2-8.**  
**Interaction Table for Serum Insulin (mIU/ml) (Nondiabetics)**  
**(Continuous)**  
**Occupation and Body Fat Removed from Final Model**

a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Age: Table A-2-7)					
Stratum	Dioxin Category	n	Adjusted Mean <sup>a</sup>	Difference of Adjusted Mean vs. Comparisons (95% C.I.) <sup>b</sup>	p-Value <sup>c</sup>
<b>Born ≥ 1942</b>	Comparison	467	57.54		
	Background RH	133	48.26	-9.28 --	0.023
	Low RH	80	57.00	-0.54 --	0.921
	High RH	136	62.35	4.81 --	0.294
	Low plus High RH	216	60.31	2.77 --	0.465
<b>Born &lt; 1942</b>	Comparison	547	70.50		
	Background RH	221	69.28	-1.22 --	0.781
	Low RH	124	71.71	1.21 --	0.826
	High RH	80	85.08	14.58 --	0.045
	Low plus High RH	204	76.68	6.18 --	0.192

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Difference of means after transformation to original scale; confidence interval on difference of means not presented because analysis was performed on natural logarithm scale.

<sup>c</sup> P-value is based on difference of means on natural logarithm scale.

Note: RH = Ranch Hand.

Model 3: Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.



## **APPENDIX B**

### **1992 Interval Questionnaire**

Project No. 4563

**AIR FORCE HEALTH STUDY**  
**Third Followup Examinations**  
**1992-1993**

**Study Subject**  
**Health Interval Questionnaire**

O.M.B. NUMBER  
07010095  
Approval Expires  
May 1988

CASE ID # 

--	--	--	--	--	--

  
Project No. 4563

## **AIR FORCE HEALTH STUDY**

**Third Followup Examinations  
1992-1993**

### **Study Subject Health Interval Questionnaire**

#### **OTHER MATERIALS REQUIRED FOR THIS INTERVIEW ARE:**

- PARTICIPANT INFORMATION SHEET
- CHILDREN'S RECORD FORM
- SUPPLEMENTARY CHILDREN'S RECORD FORM
- PRIVACY ACT STATEMENT
- INTERVAL SUPPLEMENTAL RECORDING BOOK
- RESPONDENT HAND CARDS A-Z, AA - FF
- AFSC CODES LIST
- SELF-ADMINISTERED FORM 1
- SELF-ADMINISTERED FORM 2
- MEDICAL AUTHORIZATION FORMS
- HEALTH CARE PROVIDER FORMS
- DIETARY SELF-ADMINISTERED FORM
- CALENDAR

**May 15, 1992**

**16:49 pm**

**Field Version 1.1**

**AIR FORCE HEALTH STUDY****Third Followup Examinations  
1992-1993****Health Interval Questionnaire****Table of Contents**

Section A:	Introduction and Background .....	A-1
Section B:	Education .....	B-1
Section C:	Employment (Non-Military) .....	C-1
Section D:	Military Experience .....	D-1
Section E:	Marital and Fertility History .....	E-1
Section F:	Child and Family Health .....	F-1
Section G:	Health .....	G-1
Section H:	Health Habits .....	H-1
Section I:	Recreation, Leisure, and Physical Activities .....	I-1
Section J:	Toxic Substances .....	J-1
Section K:	Income .....	K-1
INTERVIEWER REMARKS .....		IR-1

TIME BEGAN      :   AM/PM

10-13/

**SECTION A: INTRODUCTION AND  
BACKGROUND**

**FOR THIS SECTION YOU WILL NEED:**

- PARTICIPANT INFORMATION SHEET
- HAND CARD A

Before I begin the interview, let me make sure that I have your correct name and rank. Is your name (READ NAME FROM INFORMATION SHEET) and is your rank (READ RANK FROM SHEET)?

IF INCORRECT, RE-ASK, CORRECT ON SHEET AND CONTINUE. IF YOU HAVE THE WRONG PERSON, END INTERVIEW AND TALK TO SUPERVISOR.

This part of the physical examination schedule will be an interview about your health and the health of your family. There will be some questions about your education, non-military employment, military experience, and health habits.

SAY TO PARTICIPANTS WHO PARTICIPATED IN PREVIOUS ROUNDS OF THE SURVEY: According to my records, you participated during the previous rounds of this survey. This time the interview will be comparable to the last one with a few additional questions.

The interview should last about two hours.

At various points during the interview, we will use the term "biological" to describe family relationships. For example, we may ask about your "biological" children. When using this term, we are referring to people who are related to you by blood. We do not mean your step-children or step-parents or people related to you through adoption.

You may refuse to answer any question you choose. However, we and the Air Force ask that you answer as many of the questions as you can, so the results will accurately and fully tell your story. We also need as accurate a picture as possible. So when we ask you about the dates of events in your life, please try to think carefully and remember as much as you possibly can.

HAVE PARTICIPANT FILL OUT PRIVACY ACT STATEMENT.

IF R IS NEW TO THE STUDY: (HE JUST COMPLETED THE BASELINE IN LA JOLLA THIS WEEK), HIS DATE OF LAST INTERVIEW IS DECEMBER 31, 1982. USE DECEMBER 31, 1982 AS THE REFERENCE DATE WHILE ADMINISTERING THE HEALTH INTERVAL QUESTIONNAIRE. IF R IS NEW TO STUDY, SKIP TO QUESTION 4A, ON PAGE A-3.

1. First I have a few background questions to ask you. My records indicate that your date of birth is (READ DATE OF BIRTH FROM ITEM 1, INFORMATION SHEET). Is that correct?

YES ..... (CONTINUE) ..... 1 14/

NO ..... (ASK DOB, CORRECT ITEM 1,  
INFORMATION SHEET, GO TO Q.2) ..... 2

2. My records indicate that you were previously interviewed in (READ DATE OF LAST INTERVIEW FROM INFORMATION SHEET). Is that correct?

YES ..... (SKIP TO QUESTION 3) ..... 1

NO ..... (ASK Q.2A) ..... 2

- 2A. IF R CANNOT REMEMBER DATE OF LAST INTERVIEW, USE THE FOLLOWING PROBES. Were you here at Scripps five years ago?

YES ..... (ASK Q.2A1) ..... 1

NO ..... (SKIP TO Q.2B) ..... 2

- 2A1. Was it in 1988 or 1987?

YES ..... (RECORD YEAR AND GO TO Q.2C) ..... 1

NO ..... (ASK Q.2B) ..... 2

- 2B. Was it in 1986, 1985, 1982, OR 1981? (RECORD OR CORRECT INFORMATION SHEET)

- 2C. What month did the interview take place? (RECORD OR CORRECT INFORMATION SHEET)

- 2D. IF R CANNOT REMEMBER MONTH, USE THE FOLLOWING PROBE:

Was it in the Spring, Summer, Fall or Winter?

IF SPRING, CONVERT TO MONTH OF MARCH ON INFORMATION SHEET

IF SUMMER, CONVERT TO MONTH OF JUNE ON INFORMATION SHEET

IF FALL, CONVERT TO SEPTEMBER ON INFORMATION SHEET

IF WINTER, CONVERT TO DECEMBER ON INFORMATION SHEET

3. IF R WAS INTERVIEWED IN 88, 87, 86 OR 85, SKIP TO SECTION B: EDUCATION, PAGE B-1.

4A. RESPONDENT	4B. MOTHER	4C. FATHER
SHOW PARTICIPANT HAND CARD A. Please read Card A. To which of the following racial or ethnic groups do you belong? (CODE ALL THAT APPLY) (PROBE: What others?)	CONTINUE WITH HAND CARD A. To which of the following racial or ethnic groups does your <b>biological</b> mother belong? (CODE ALL THAT APPLY) (PROBE: What others?)	CONTINUE WITH HAND CARD A. To which of the following racial or ethnic groups does your <b>biological</b> father belong? (CODE ALL THAT APPLY) (PROBE: What others?)
ENGLISH/WELSH . . . 01 15-16/	ENGLISH/WELSH . . . 01 51-52/	ENGLISH/WELSH . . . 01 16-17/
SCOTTISH . . . . . 02 17-18/	SCOTTISH . . . . . 02 53-54	SCOTTISH . . . . . 02 18-19/
GERMAN . . . . . 03 19-20/	GERMAN . . . . . 03 55-56/	GERMAN . . . . . 03 20-21/
IRISH . . . . . 04 21-22/	IRISH . . . . . 04 57-58/	IRISH . . . . . 04 22-23/
SCANDINAVIAN . . . 05 23-24/	SCANDINAVIAN . . . 05 59-60/	SCANDINAVIAN . . . 05 24-25/
POLISH . . . . . 06 25-26/	POLISH . . . . . 06 61-62/	POLISH . . . . . 06 26-27/
RUSSIAN . . . . . 07 27-28/	RUSSIAN . . . . . 07 63-64/	RUSSIAN . . . . . 07 28-29/
OTHER SLAVIC . . . 08 29-30/	OTHER SLAVIC . . . 08 65-66/	OTHER SLAVIC . . . 08 30-31/
JEWISH . . . . . 09 31-32/	JEWISH . . . . . 09 67-68/	JEWISH . . . . . 09 32-33/
FRENCH . . . . . 10 33-34/	FRENCH . . . . . 10 69-70/	FRENCH . . . . . 10 34-35/
ITALIAN . . . . . 11 35-36/	ITALIAN . . . . . 11 71-72/	ITALIAN . . . . . 11 36-37/
SPANISH . . . . . 12 37-38/	SPANISH . . . . . 12 73-74/	SPANISH . . . . . 12 38-39/
MEXICAN . . . . . 13 39-40/	MEXICAN . . . . . 13 75-76/	MEXICAN . . . . . 13 40-41/
GREEK . . . . . 14 41-42/	GREEK . . . . . 14 77-78/	GREEK . . . . . 14 42-43/
AMERICAN INDIAN 15 43-44/	AMERICAN INDIAN 15 79-80/	AMERICAN INDIAN 15 44-45/
	BEGIN DECK 02	
ASIAN . . . . . 16 45-46/	ASIAN . . . . . 16 10-11/	ASIAN . . . . . 16 46-47/
AFRICAN (OR BLACK AMERICAN) 17 47-48/	AFRICAN (OR BLACK AMERICAN) 17 12-13/	AFRICAN (OR BLACK AMERICAN) 17 48-49/
OTHER (SPECIFY) _____	OTHER (SPECIFY) _____	OTHER (SPECIFY) _____
_____ 18 49-50/	_____ 18 14-15/	_____ 18 50-51/

## SECTION B: EDUCATION

FOR THIS SECTION YOU WILL NEED:

- PARTICIPANT INFORMATION SHEET
- HAND CARD B

1A. My records show that when you were last interviewed you had received a (READ LAST DEGREE OBTAINED FROM ITEM 2 OF INFORMATION SHEET). Is that correct?

YES ..... 1

NO .... (CORRECT INFORMATION SHEET  
AND GO TO Q.1B) ..... 2

MISSING (ASK AND RECORD ON INFORMATION SHEET) .. 3

1B. SHOW PARTICIPANT HAND CARD B. Have you received any (additional) regular school certificates, diplomas or degrees since (DATE OF LAST INTERVIEW)?

YES ... (ASK Q.1C AND Q.1D) ..... 1

NO .... (SKIP TO Q.2, NEXT PAGE) ..... 2

52/

1C. What certificates, diplomas,  
and/or degrees did you get?  
(CODE ALL THAT APPLY)

1D. INTERVIEWER: FOR  
EACH DEGREE CODED  
IN Q.1C, ASK Q.1D. In  
what year did you receive  
(DEGREE IN 1C.)?  
RECORD YEAR

HIGH SCHOOL DIPLOMA .....	01	53-54/	19	YEAR	55-56/
HIGH SCHOOL EQUIVALENCY DIPLOMA ...	02	57-58/	19	YEAR	59-60/
ASSOCIATE OF ARTS (A.A.) .....	03	61-62/	19	YEAR	63-64/
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) .....	04	65-66/	19	YEAR	67-68/
MASTERS (M.A. OR M.S.) .....	05	69-70/	19	YEAR	71-72/
DOCTORATE (Ph.D., M.D., Ed.D., Sc.D.) ....	06	73-74/	19	YEAR	75-76/
OTHERS (SPECIFY)					
<hr/>					
<hr/>					
	07	77-78/	19	YEAR	79-80/

NO CERTIFICATE, DIPLOMA, OR DEGREE  
(VOLUNTEERED) ..... 08

BEGIN DECK 03  
10-11/



2. Since (DATE OF LAST INTERVIEW) have you participated in any civilian job training programs (other than the formal schooling that we discussed), that prepared you for a major change in your occupation?

YES ..... (ASK Q.2A) ..... 1

12/

NO ..... (SKIP TO Q.3, PAGE B-5) ..... 2

### FIRST PROGRAM: CIVILIAN JOB TRAINING

- 2A. For what kind of work was your first civilian training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---



---



---



---



---

13-15/

- 2B. In what month and year did you start this training?

				-				
MONTH					YEAR			

16-19/

- 2C. In what month and year did you complete this training?

				-				
MONTH					YEAR			

20-23/

CURRENTLY IN TRAINING ..... 1

- 2D. Have you participated in any other civilian job training program that prepared you for a major change in your occupation?

YES ..... (ASK Q.2E, NEXT PAGE) ..... 1

24/

NO ..... (SKIP TO Q.3, PAGE B-5) ..... 2

**SECOND PROGRAM: CIVILIAN JOB TRAINING**

- 2E. For what kind of work was your second civilian training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---

---

---

---

---

25-27/

- 2F. In what month and year did you start this training?

_	_	-	_	_
MONTH			YEAR	

28-31/

- 2G. In what month and year did you complete this training?

_	_	-	_	_
MONTH			YEAR	

32-35/

CURRENTLY IN TRAINING ..... 1

- 2H. Have you participated in any other civilian job training program that prepared you for a major change in your occupation?

YES ..... (ASK Q.2I, NEXT PAGE) ..... 1      36/

NO ..... (SKIP TO Q.3, PAGE B-5) ..... 2

**THIRD PROGRAM: CIVILIAN JOB TRAINING**

- 2I. For what kind of work was your third civilian training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---



---



---



---



---

37-39/

- 2J. In what month and year did you start this training?

_ _	--	_ _
MONTH		YEAR

40-43/

- 2K. In what month and year did you complete this training?

_ _	-	_ _
MONTH		YEAR

44-47/

CURRENTLY IN TRAINING ..... 1

- 2L. Have you participated in any other civilian job training program that prepared you for a major change in your occupation?

YES ..... (GO TO NEW QUEX) ..... 1

48/

NO ..... 2

3. Have you served in the military full-time on active duty since (DATE OF LAST INTERVIEW).  
IF NEW TO STUDY, USE DECEMBER 31, 1982).

YES ..... 1 49/

NO ... (SKIP TO SECTION C, PAGE C-1) ..... 2

4. Are you currently serving in the military on active duty?

YES ..... 1 50/

NO ..... 2

5. Now let's talk about any military and specialized training programs that prepared you for a major change in your occupation. Since (DATE OF LAST INTERVIEW), (and besides the formal schooling and job training programs you've told me about), have you participated in any military technical or specialized training programs that prepared you for a major change in your career?

YES .. (ASK Q.5A, NEXT PAGE) ..... 1 51/

NO ... (SKIP TO SECTION C, PAGE C-1) ..... 2

**FIRST PROGRAM (LEAST RECENT): MILITARY TRAINING PROGRAM**

- 5A. For what kind of work was your first military training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---

---

---

---

---

- 5B. What is the AFSC for that job?

--	--	--	--	--

52-56/

- 5C. In what month and year did you start this training?

		-		
MONTH			YEAR	

57-60/

- 5D. In what month and year did you complete this training?

		-		
MONTH			YEAR	

61-64/

CURRENTLY IN TRAINING ..... 1

- 5E. Have you participated in any other military job training program that prepared you for a major change in your occupation?

YES ... (ASK Q.5F, NEXT PAGE) ..... 1

65/

NO ... (SKIP TO SECTION C, PAGE C-1) ..... 2

**SECOND PROGRAM: MILITARY TRAINING PROGRAM**

5F. For what kind of work was your second military training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---

---

---

---

---

5G. What is the AFSC for that job?

--	--	--	--	--

66-70/

5H. In what month and year did you start this training?

		-		
MONTH			YEAR	

71-74/

5I. In what month and year did you complete this training?

		-		
MONTH			YEAR	

75-78/

CURRENTLY IN TRAINING ..... 1

5J. Have you participated in any other military job training program that prepared you for a major change in your occupation?

YES .. (ASK Q.5K, NEXT PAGE) ..... 1

79/

NO ... (SKIP TO SECTION C, PAGE C-1) ..... 2

**THIRD PROGRAM (MOST RECENT): MILITARY TRAINING PROGRAM**

5K. For what kind of work was your third military training program preparing you?  
PROBE: What would your main duties be if you went into this line of work?

---

---

---

---

---

5L. What is the AFSC for that job?

BEGIN DECK 04

--	--	--	--	--

10-14/

5M. In what month and year did you start this training?

		-		
MONTH			YEAR	

15-18/

5N. In what month and year did you complete this training?

		-		
MONTH			YEAR	

19-22/

CURRENTLY IN TRAINING ..... 1

5O. Have you participated in any other military job training program that prepared you for a major change in your occupation?

YES .. (GO TO NEW QUEX) ..... 1

23/

NO ... (GO TO SECTION C, NEXT PAGE) ..... 2

24-27/R

**SECTION C: EMPLOYMENT (NON-MILITARY)**

**FOR THIS SECTION YOU WILL NEED:**

- INTERVAL SUPPLEMENTAL RECORDING BOOK (I.S.R.B.)
- HAND CARD C
- HAND CARD D
- HAND CARD E

**CURRENT OR MOST RECENT JOB**

1. Now I have some questions about working. Please tell me about any jobs you've had that lasted for 3 months or longer since (DATE OF LAST INTERVIEW). Include current or newly found jobs. If you had more than one job at the same time, please tell me about each job separately. *Count changes of jobs for the same employer as separate jobs. Do not include jobs in the military.* Let's start with the most recent regular job you've had and work back in time to (DATE OF LAST INTERVIEW).

In what month and year did you start your current job, or if you don't have a current job, your most recent job that lasted 3 months or longer?

\_\_\_\_ - \_\_\_\_  
MONTH YEAR

28-31/

NO CIVILIAN JOBS:

ONLY MILITARY JOBS. . . (SKIP TO Q.IS.1 IN I.S.R.B. ON PAGE 2) . . . 1

32/

- 1A. What (is/was) the name of your employer?

33-57/

- 1B. (Is/Was) this a full-time or part-time job?

FULL-TIME . . . . . 1

58/

PART-TIME . . . . . 2

- 1C. What kind of business (is/was) that--what (do/did) they make or do there?  
RECORD VERBATIM

59-61/

- 1D. What (do/did) you actually do on the job--what (are/were) some of your main duties?  
RECORD VERBATIM

62-64/



**CURRENT OR MOST RECENT JOB (Continued)**

- 1E. SHOW PARTICIPANT HAND CARD C. Please look at this card and tell me which number best describes the kind of industry you (work/worked) in?

WRITE IN NUMBER:

65-66/

- 1F. In what month and year did this job end or is this your current job?

-   
MONTH YEAR

67-70/

CURRENT JOB .....(SKIP TO Q.2 BELOW) ..... 1

71/

- 1G. What was the main reason you stopped working on your job?  
(RECORD VERBATIM)

72-73/

2. SHOW PARTICIPANT HAND CARD D. While working at (EMPLOYER) (do/did) you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY

Asbestos ..... 01 74-75/  
BEGIN DECK 05

Ionizing or nuclear radiation ..... 02 10-11/

Industrial chemicals ..... 03 14-15/

Insecticides or pesticides ..... 04 18-19/

Degreasing chemicals ..... 05 22-23/

Defoliants or herbicides ..... 06 26-27/

NONE OF THE ABOVE  
(SKIP TO Q.5, PAGE C-3) ..... 07 30-31/

- 2A. FOR EACH SUBSTANCE CODED IN Q.2, ASK Q.2A.

In general, how many days a month did you come in contact with (SUBSTANCE)?

DAYS Less than once a month .. 95 76-77/

DAYS Less than once a month .. 95 12-13/

DAYS Less than once a month .. 95 16-17/

DAYS Less than once a month .. 95 20-21/

DAYS Less than once a month .. 95 24-25/

DAYS Less than once a month .. 95 28-29/

**CURRENT OR MOST RECENT JOB (Continued)**

3. While you were on that job, how often (do/did) you wash to remove the (SUBSTANCES) or use protective gear – would you say all of the time, some of the time, or never?

ALL OF THE TIME .....	1	32/
SOME OF THE TIME .....	2	
NEVER .....	(SKIP TO Q.5)	3

4. SHOW PARTICIPANT HAND CARD E. Which of the following (do/did) you use on that job?  
CODE ALL THAT APPLY

Air filter .....	01	33-34/
Goggles .....	02	35-36/
Face shield .....	03	37-38/
Special clothing .....	04	39-40/
Washing facilities .....	05	41-42/
Self-contained or supplied air breathing apparatus .....	06	43-44/
NONE .....	07	45-46/

5. Did you have another job before the job with (EMPLOYER NAME IN Q.1A) since (DATE OF LAST INTERVIEW) that lasted 3 months or longer?

YES .....	1	47/
NO .....	(SKIP TO Q.15.1 IN I.S.R.B. ON PAGE 2)	2

**SECOND MOST RECENT JOB**

6. In what month and year did you start that job?

			-			
MONTH				YEAR		

48-51/

6A. What was the name of your employer?

52-76/

6B. I have to ask you the same questions for this employer. Was this a full-time or part-time job?

FULL-TIME ..... 1

77/

PART-TIME ..... 2

BEGIN DECK 06

6C. What kind of business was that--what did they make or do there?  
RECORD VERBATIM

10-12/

6D. What did you actually do on the job--what were some of your main duties?  
RECORD VERBATIM

13-15/

**SECOND MOST RECENT JOB (Continued)**

- 6E. SHOW PARTICIPANT HAND CARD C. Please look at this card and tell me which number best describes the kind of industry you worked in?

WRITE IN NUMBER:

16-17/

- 6F. In what month and year did this job end?

MONTH --  YEAR

18-21/

CURRENT JOB ..... (SKIP TO Q.7, BELOW) ..... 1

- 6G. What was the main reason you stopped working on your job?  
RECORD VERBATIM

22-23/

7. SHOW PARTICIPANT HAND CARD D. While working at (EMPLOYER NAMED IN Q.6A) did you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY

7A. FOR EACH SUBSTANCE CODED IN Q.7, ASK Q.7A.

In general, how many days a month did you come in contact with (SUBSTANCE)?

Asbestos ..... 01 24-25/

DAYS Less than once a month . . 95 26-27/

Ionizing or nuclear radiation ..... 02 28-29/

DAYS Less than once a month . . 95 30-31/

Industrial chemicals ..... 03 32-33/

DAYS Less than once a month . . 95 34-35/

Insecticides or pesticides ..... 04 36-37/

DAYS Less than once a month . . 95 38-39/

Degreasing chemicals ..... 05 40-41/

DAYS Less than once a month . . 95 42-43/

Defoliants or herbicides ..... 06 44-45/

DAYS Less than once a month . . 95 46-47/

NONE OF THE ABOVE

(SKIP TO Q.10, PAGE C-6) ..... 07 48-49/

**SECOND MOST RECENT JOB (Continued)**

8. While you were on that job, how often did you wash to remove the (SUBSTANCES) or use protective gear -- would you say all of the time, some of the time, or never?

ALL OF THE TIME ..... 1                      50/  
 SOME OF THE TIME ..... 2  
 NEVER ..... (SKIP TO Q.10) ..... 3

9. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job?  
 CODE ALL THAT APPLY

Air filter ..... 01                      51-52/  
 Goggles ..... 02                      53-54/  
 Face shield ..... 03                      55-56/  
 Special clothing ..... 04                      57-58/  
 Washing facilities ..... 05                      59-60/  
 Self-contained or supplied air breathing apparatus ..... 06                      61-62/  
 NONE ..... 07                      63-64/

10. Did you have another job before the job with (EMPLOYER NAME IN Q.6A) since (DATE OF LAST INTERVIEW)?

YES ..... 1                      65/  
 NO ..... (SKIP TO Q.15.1 IN I.S.R.B. ON PAGE 2) ..... 2

**THIRD MOST RECENT JOB**

11. In what month and year did you start that job?

\_\_\_\_ - \_\_\_\_  
MONTH YEAR

66-69/

11A. What was the name of your employer?

BEGIN DECK 07

10-34/

11B. Was this a full-time or part-time job?

FULL-TIME ..... 1

35/

PART-TIME ..... 2

11C. What kind of business was that--what did they make or do there?  
RECORD VERBATIM

36-38/

11D. What did you actually do on the job--what were some of your main duties?  
RECORD VERBATIM

39-41/

**THIRD MOST RECENT JOB (Continued)**

- 11E. SHOW PARTICIPANT HAND CARD C. Please look at this card and tell me which number best describes the kind of industry you worked in?

WRITE IN NUMBER:   42-43/

- 11F. In what month and year did this job end?

-    
MONTH YEAR

CURRENT JOB ..... (SKIP TO Q.12, BELOW) ..... 1 44-47/

- 11G. What was the main reason you stopped working on your job?  
RECORD VERBATIM

48-49/

12. SHOW PARTICIPANT HAND CARD D. While working at (EMPLOYER NAMED IN Q.11A) did you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY

12A. FOR EACH SUBSTANCE CODED IN Q.12, ASK 12A.

In general, how many days a month did you come in contact with (SUBSTANCE)?

Asbestos ..... 01 50-51/

DAYS Less than once a month . . 95 52-5

Ionizing or nuclear radiation ..... 02 54-55/

DAYS Less than once a month . . 95 56-5

Industrial chemicals ..... 03 58-59/

DAYS Less than once a month . . 95 60-6

Insecticides or pesticides ..... 04 62-63/

DAYS Less than once a month . . 95 64-6

Degreasing chemicals ..... 05 66-67/

DAYS Less than once a month . . 95 68-6

Defoliants or herbicides ..... 06 70-71/

DAYS Less than once a month . . 95 72-7

NONE OF THE ABOVE  
(SKIP TO Q.15, PAGE C-9) ..... 07 74-75/

**THIRD MOST RECENT JOB (Continued)**

13. While you were on that job, how often did you wash to remove the (SUBSTANCES) or use protective gear – would you say all of the time, some of the time, or never?

ALL OF THE TIME ..... 1 76/  
 SOME OF THE TIME ..... 2  
 NEVER ..... (SKIP TO Q.15, BELOW) ..... 3

14. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job?  
 CODE ALL THAT APPLY

BEGIN DECK 08

Air filter ..... 01 10-11/  
 Goggles ..... 02 12-13/  
 Face shield ..... 03 14-15/  
 Special clothing ..... 04 16-17/  
 Washing facilities ..... 05 18-19/  
 Self-contained or supplied air breathing apparatus ..... 06 20-21/  
 NONE ..... 07 22-23/

15. Did you have another job before the job with (EMPLOYER NAME IN Q.11A) since (DATE OF LAST INTERVIEW)?

YES ..... 1 24/  
 NO ..... (SKIP TO Q.15.1 IN I.S.R.B. ON PAGE 2) ..... 2



**FOURTH MOST RECENT JOB**

16. In what month and year did you start that job?

<div>  </div>	<div>  </div>	--	<div>  </div>	<div>  </div>
MONTH			YEAR	

25-28/

16A. What was the name of your employer?

29-53/

16B. Was this a full-time or part-time job?

FULL-TIME ..... 1

54/

PART-TIME ..... 2

16C. What kind of business was that--what did they make or do there?  
RECORD VERBATIM

55-57/

16D. What did you actually do on the job--what were some of your main duties?  
RECORD VERBATIM

58-60/

**FOURTH MOST RECENT JOB (Continued)**

- 16E. SHOW PARTICIPANT HAND CARD C. Please look at this card and tell me which number best describes the kind of industry you worked in?

WRITE IN NUMBER:

61-62/

- 16F. In what month and year did this job end?

-    
MONTH YEAR

63-66/

CURRENT JOB ..... (SKIP TO Q.17, BELOW) ..... 1

- 16G. What was the main reason you stopped working on your job?  
RECORD VERBATIM

67-68/

17. SHOW PARTICIPANT HAND CARD D. While working at (EMPLOYER NAMED IN Q.16A) did you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY

17A. FOR EACH SUBSTANCE CODED IN Q.17, ASK Q.17A.

In general, how many days a month did you come in contact with (SUBSTANCE)?

Asbestos ..... 01 69-70/

DAYS Less than once a month . . 95 71-72/

Ionizing or nuclear radiation ..... 02 73-74/

DAYS Less than once a month . . 95 75-76/

Industrial chemicals ..... 03 77-78/

DAYS Less than once a month . . 95 79-80/

BEGIN DECK 09

Insecticides or pesticides ..... 04 10-11/

DAYS Less than once a month . . 95 12-13/

Degreasing chemicals ..... 05 14-15/

DAYS Less than once a month . . 95 16-17/

Defoliants or herbicides ..... 06 18-19/

DAYS Less than once a month . . 95 20-21/

NONE OF THE ABOVE

(SKIP TO Q.20, PAGE C-12) ..... 07 22-23/

**FOURTH MOST RECENT JOB (Continued)**

18. While you were on that job, how often did you wash to remove the (SUBSTANCES) or use protective gear – would you say all of the time, some of the time, or never?

ALL OF THE TIME .....	1	24/
SOME OF THE TIME .....	2	
NEVER .....	(SKIP TO Q.20, BELOW) .....	3

19. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job?  
CODE ALL THAT APPLY

Air filter .....	01	25-26/
Goggles .....	02	27-28/
Face shield .....	03	29-30/
Special clothing .....	04	31-32/
Washing facilities .....	05	33-34/
Self-contained or supplied air breathing apparatus .....	06	35-36/
NONE .....	07	37-38/

20. Did you have another job before the job with (EMPLOYER NAME IN Q.16A) since (DATE OF LAST INTERVIEW)?

YES .....	(USE NEW QUEX) .....	1	39/
NO .....	(SKIP TO Q.IS.1 IN I.S.R.B. ON PAGE 2)	2	

21. During the past six months, did *illness or injury* keep you from working, not counting work around the house?

YES ..... 1 40/  
NO ..... (SKIP TO SECTION D) ..... 2  
RETIRED ..... (SKIP TO SECTION D) ..... 3  
UNEMPLOYED ..... (SKIP TO SECTION D) ..... 4

22. Altogether, how many days did illness or injury keep you from working during the past six months?  
REFERS TO "WORKING DAYS" ONLY

ENTER NUMBER OF DAYS:

41-43/

23. What illnesses or injuries caused you to miss work? (PROBE: What others?)

44/  

---

---

**SECTION D: MILITARY EXPERIENCE**

**FOR THIS SECTION YOU WILL NEED:**

- PARTICIPANT INFORMATION SHEET
- HAND CARD D
- HAND CARD E
- HAND CARD F

1. WAS R INTERVIEWED IN 1985, 1986 OR 1987, 1988? SEE INFORMATION SHEET.
- YES ..... (SKIP TO Q.3) ..... 1
- NO ..... (GO TO Q.2) ..... 2
2. SHOW PARTICIPANT HAND CARD F. Which of the following statements best describes your assignment during the Vietnam War? Were you ... (READ CHOICES)? CODE ONE.
- A crew member in Vietnam who was on flying status ..... 1 45/
- Not a crew member, but flew one or more missions in Vietnam ..... 2
- A crew member, but did not log flying time in Vietnam ..... 3
- Not a crew member ..... 4
3. INTERVIEWER: HAS R SERVED IN MILITARY ON ACTIVE DUTY SINCE DATE OF LAST INTERVIEW? INTERVIEWER CHECK: GO TO SECTION B, PAGE B-5. IS QUESTION 3 CODED "YES"?
- YES ..... (GO TO Q.3A) ..... 1 46/
- NO ..... (SKIP TO SECTION E, PAGE E-1) ..... 2
- 3A. I am going to ask you about some of your experience in the military since (READ DATE OF LAST INTERVIEW).
- 3B. According to your records, your last branch of service was (BRANCH FROM ITEM 3)? Is that correct?
- YES ..... 1
- NO ..... (CORRECT INFORMATION SHEET) ..... 2
- MISSING. .... (ASK LAST BRANCH OF SERVICE, RECORD AT ITEM 3 ON INFORMATION SHEET) ..... 3

4. Since (DATE OF LAST INTERVIEW) have you retired, been discharged or separated from the (BRANCH OF SERVICE FROM ITEM 3 ON SHEET)?

(IF BRANCH MISSING, ASK AND ADD TO INFO SHEET.)

YES ..... (ASK Q.4A THROUGH Q.4C) ..... 1 47/  
NO ..... (SKIP TO Q.5, PAGE ) ..... 2

- 4A. Were you retired, discharged or separated?

RETIRED ..... 1 48/  
DISCHARGED/SEPARATED ..... 2

- 4B. In what month and year were you (retired/discharged/separated) from the (READ BRANCH OF SERVICE FROM ITEM 3)?

    | | - | |  
    MONTH      YEAR 49-52/

- 4C. Following your (retirement/separation/discharge) in (DATE IN Q.4B.), did you re-enter the armed forces?

YES ..... 1 53/  
NO ..... 2

5. I would like to ask you the names of all the countries, including the United States, you have been stationed in since (DATE OF LAST INTERVIEW). I will also ask you some questions about your military assignments while in these countries.

When last interviewed you were stationed in (COUNTRY FROM INFORMATION SHEET ITEM 3), and your assignment began in (DATE OF ASSIGNMENT FROM INFORMATION SHEET ITEM 3). Is that correct?

YES ..... (ASK Q.5B THROUGH Q.5K) ..... 1 54/  
NO ..... (CORRECT INFORMATION SHEET,  
THEN ASK Q.5B THROUGH Q.5K) ..... 2  
MISSING . (ASK COUNTRY AND DATE OF ASSIGNMENT,  
ADD TO INFO SHEET AND ASK Q.5B THROUGH Q.5K) .... 3  
NO ACTIVE DUTY AT LAST  
INTERVIEW. . . (ASK Q.5A THROUGH Q.5K) ..... 4

BEGIN DECK 10

FIRST COUNTRY	SECOND COUNTRY	THIRD COUNTRY
<p>5A. Since (READ DATE OF LAST INTERVIEW), in what country were you next stationed while on active duty? Please include temporary duties of greater than 90 days.</p> <p>_____</p> <p>1ST COUNTRY 55-56/</p>	<p>5L. Since (READ DATE OF LAST INTERVIEW), in what other country were you next stationed while on active duty? Please include temporary duties of greater than 90 days.</p> <p>_____</p> <p>1ST COUNTRY 10-11/</p>	<p>5W. Since (READ DATE OF LAST INTERVIEW), in what other country were you next stationed while on active duty? Please include temporary duties of greater than 90 days.</p> <p>_____</p> <p>1ST COUNTRY 35-36/</p>
<p>5B. In what month and year did you begin and end active duty in (COUNTRY)?</p> <p>BEGIN</p> <p>____ - ____</p> <p>MONTH YEAR 57-60/</p> <p>END</p> <p>____ - ____</p> <p>MONTH YEAR 61-64/</p> <p>CURRENT (NO END DATE) ..... 1</p>	<p>5M. In what month and year did you begin and end active duty in (COUNTRY)?</p> <p>BEGIN</p> <p>____ - ____</p> <p>MONTH YEAR 12-15/</p> <p>END</p> <p>____ - ____</p> <p>MONTH YEAR 16-19/</p> <p>CURRENT (NO END DATE) ..... 1</p>	<p>5X. In what month and year did you begin and end active duty in (COUNTRY)?</p> <p>BEGIN</p> <p>____ - ____</p> <p>MONTH YEAR 37-40/</p> <p>END</p> <p>____ - ____</p> <p>MONTH YEAR 41-44/</p> <p>CURRENT (NO END DATE) ..... 1</p>
<p>5C. What specific job assignments (do/did) you have in (COUNTRY) since (DATE OF LAST INTERVIEW)? Can you give me the Air Force Speciality Code? (PROBE: What others?)</p> <p>1. _____ 65-69/</p> <p>2. _____ 70-74/</p> <p>3. _____ 75-79/</p> <p>(GO TO Q5.D ON PAGE D-4)</p>	<p>5N. What specific job assignments (do/did) you have in (COUNTRY) since (DATE OF LAST INTERVIEW)? Can you give me the Air Force Speciality Code? (PROBE: What others?)</p> <p>1. _____ 20-24/</p> <p>2. _____ 25-29/</p> <p>3. _____ 30-34/</p> <p>(GO TO Q5.O ON PAGE D-4)</p>	<p>5Y. What specific job assignments (do/did) you have in (COUNTRY) since (DATE OF LAST INTERVIEW)? Can you give me the Air Force Speciality Code? (PROBE: What others?)</p> <p>1. _____ 45-49/</p> <p>2. _____ 50-54/</p> <p>3. _____ 55-59/</p> <p>(GO TO Q.5Z ON PAGE D-4)</p>

## BEGIN DECK 11

FIRST COUNTRY	SECOND COUNTRY	THIRD COUNTRY
<p>5D. (Do/Did) your duties in (COUNTRY) since (DATE OF LAST INTERVIEW) include flying?</p> <p style="text-align: right;">60/</p> <p>YES ..... 1</p> <p>NO . (SKIP TO Q.5G ON PAGE D-5) . . 2</p>	<p>5O. (Do/Did) your duties in (COUNTRY) since (DATE OF LAST INTERVIEW) include flying?</p> <p style="text-align: right;">10/</p> <p>YES ..... 1</p> <p>NO . (SKIP TO Q.5R ON PAGE D-5) . . 2</p>	<p>5Z. (Do/Did) your duties in (COUNTRY) since (DATE OF LAST INTERVIEW) include flying?</p> <p style="text-align: right;">30/</p> <p>YES ..... 1</p> <p>NO . (SKIP TO Q.5CC ON PAGE D-5) . . 2</p>
<p>5E. How many flight hours did you log while in (COUNTRY) since (DATE OF LAST INTERVIEW)?</p> <p style="text-align: right;">61-64/</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <p style="text-align: center;">Hours</p>	<p>5P. How many flight hours did you log while in (COUNTRY) since (DATE OF LAST INTERVIEW)?</p> <p style="text-align: right;">11-14/</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <p style="text-align: center;">Hours</p>	<p>5AA. How many flight hours did you log while in (COUNTRY) since (DATE OF LAST INTERVIEW)?</p> <p style="text-align: right;">31-34/</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <p style="text-align: center;">Hours</p>
<p>5F. What specific letter and numerical designation(s) did each aircraft have since (DATE OF LAST INTERVIEW)?</p> <p>1. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 65-69/</p> <p>2. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 70-74/</p> <p>3. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 75-79/</p> <p>(GO TO Q.5G ON PAGE D-5)</p>	<p>5Q. What specific letter and numerical designation(s) did each aircraft have since (DATE OF LAST INTERVIEW)?</p> <p>1. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 15-19/</p> <p>2. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 20-24/</p> <p>3. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 25-29/</p> <p>(GO TO Q.5R ON PAGE D-5)</p>	<p>5BB. What specific letter and numerical designation(s) did each aircraft have since (DATE OF LAST INTERVIEW)?</p> <p>1. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 35-39/</p> <p>2. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 40-44/</p> <p>3. <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> 45-49/</p> <p>(GO TO Q.5CC ON PAGE D-5)</p>



## BEGIN DECK 12

FIRST COUNTRY	SECOND COUNTRY	THIRD COUNTRY
<p>5G. SHOW PARTICIPANT HAND CARD D. In your job assignments while stationed in (COUNTRY), (do/did) you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals, or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY.</p> <p>Asbestos . . . . . 01 50-51/</p> <p>Ionizing or nuclear radiation . . . 02 52-53/</p> <p>Industrial chemicals . 03 54-55/</p> <p>Insecticides or pesticides . . . . . 04 56-57/</p> <p>Degreasing chemicals 05 58-59/</p> <p>Defoliants or herbicides . . . . . 06 60-61/</p> <p>NONE OF THE ABOVE (SKIP TO SECOND COUNTRY Q.5K ON PAGE D-7) . . . . . 07 62-63/</p>	<p>5R. SHOW PARTICIPANT HAND CARD D. In your job assignments while stationed in (COUNTRY), (do/did) you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals, or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY.</p> <p>Asbestos . . . . . 01 64-65/</p> <p>Ionizing or nuclear radiation . . . 02 66-67/</p> <p>Industrial chemicals . 03 68-69/</p> <p>Insecticides or pesticides . . . . . 04 70-71/</p> <p>Degreasing chemicals 05 72-73/</p> <p>Defoliants or herbicides . . . . . 06 74-75/</p> <p>NONE OF THE ABOVE (SKIP TO THIRD COUNTRY Q.5V ON PAGE D-7) . . . . . 07 76-77/</p>	<p>5CC. SHOW PARTICIPANT HAND CARD D. In your job assignments while stationed in (COUNTRY), (do/did) you come in contact with any of the substances on this card? By contact I mean that you inhaled, tasted, had skin contact with these fibers and chemicals, or were exposed to ionizing or nuclear radiation. CODE ALL THAT APPLY.</p> <p>Asbestos . . . . . 01 10-11/</p> <p>Ionizing or nuclear radiation . . . . 02 12-13/</p> <p>Industrial chemicals . 03 14-15/</p> <p>Insecticides or pesticides . . . . . 04 16-17/</p> <p>Degreasing chemicals 05 18-19/</p> <p>Defoliants or herbicides . . . . . 06 20-21/</p> <p>NONE OF THE ABOVE (SKIP TO FOURTH COUNTRY Q.5GG ON PAGE D-7) . . . . . 07 22-23/</p>

FIRST COUNTRY	SECOND COUNTRY	THIRD COUNTRY
<p>5H. FOR ANY SUBSTANCE CODED IN PREVIOUS QUESTION, ASK: In general, how many days a month (do/did) you come in contact with (SUBSTANCE)?</p> <p>Asbestos <input type="text"/> <input type="text"/> 24-25/ less than once a month ..... 95</p> <p>Ionizing or nuclear radiation <input type="text"/> <input type="text"/> 26-27/ less than once a month ..... 95</p> <p>Industrial chemicals <input type="text"/> <input type="text"/> 28-29/ less than once a month ..... 95</p> <p>Insecticides or pesticides <input type="text"/> <input type="text"/> 30-31/ less than once a month ..... 95</p> <p>Degreasing chemicals <input type="text"/> <input type="text"/> 32-33/ less than once a month ..... 95</p> <p>Defoliants or herbicides <input type="text"/> <input type="text"/> 34-35/ less than once a month ..... 95</p>	<p>5S. FOR ANY SUBSTANCE CODED IN PREVIOUS QUESTION, ASK: In general, how many days a month (do/did) you come in contact with (SUBSTANCE)?</p> <p>Asbestos <input type="text"/> <input type="text"/> 37-38/ less than once a month ..... 95</p> <p>Ionizing or nuclear radiation <input type="text"/> <input type="text"/> 39-40/ less than once a month ..... 95</p> <p>Industrial chemicals <input type="text"/> <input type="text"/> 41-42/ less than once a month ..... 95</p> <p>Insecticides or pesticides <input type="text"/> <input type="text"/> 43-44/ less than once a month ..... 95</p> <p>Degreasing chemicals <input type="text"/> <input type="text"/> 45-46/ less than once a month ..... 95</p> <p>Defoliants or herbicides <input type="text"/> <input type="text"/> 47-48/ less than once a month ..... 95</p>	<p>5DD. FOR ANY SUBSTANCE CODED IN PREVIOUS QUESTION, ASK: In general, how many days a month (do/did) you come in contact with (SUBSTANCE)?</p> <p>Asbestos <input type="text"/> <input type="text"/> 50-51/ less than once a month ..... 95</p> <p>Ionizing or nuclear radiation <input type="text"/> <input type="text"/> 52-53/ less than once a month ..... 95</p> <p>Industrial chemicals <input type="text"/> <input type="text"/> 54-55/ less than once a month ..... 95</p> <p>Insecticides or pesticides <input type="text"/> <input type="text"/> 56-57/ less than once a month ..... 95</p> <p>Degreasing chemicals <input type="text"/> <input type="text"/> 58-59/ less than once a month ..... 95</p> <p>Defoliants or herbicides <input type="text"/> <input type="text"/> 60-61/ less than once a month ..... 95</p>
<p>5I. When you washed to remove the (SUBSTANCES) or used protective clothing or gear when stationed in (COUNTRY) was it all the time, some of the time, or never? 36/</p> <p>ALL THE TIME ..... 1</p> <p>SOME OF THE TIME ... 2</p> <p>NEVER. (SKIP TO Q.5K PAGE D-7) ..... 3</p>	<p>5T. When you washed to remove the (SUBSTANCES) or used protective clothing or gear when stationed in (COUNTRY) was it all the time, some of the time, or never? 49/</p> <p>ALL THE TIME ..... 1</p> <p>SOME OF THE TIME ..... 2</p> <p>NEVER. (SKIP TO Q.5V PAGE D-7) ..... 3</p>	<p>5EE. When you washed to remove the (SUBSTANCES) or used protective clothing or gear when stationed in (COUNTRY) was it all the time, some of the time, or never? 62/</p> <p>ALL THE TIME ..... 1</p> <p>SOME OF THE TIME ..... 2</p> <p>NEVER. (SKIP TO Q.5GG PAGE D-7) ..... 3</p>

## BEGIN DECK 13

FIRST COUNTRY	SECOND COUNTRY	THIRD COUNTRY
<b>5J. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job? CODE ALL THAT APPLY.</b>  Air filter . . . . 01 63-64/ Goggles . . . . 02 65-66/ Face Shield . 03 67-68/ Special clothing 04 69-70/ Washing facilities . . . . 05 71-72/ Self contained or supplied air breathing apparatus . . 06 73-74/ NONE . . . . 07 75-76/	<b>5U. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job? CODE ALL THAT APPLY.</b>  Air filter . . . . 01 10-11/ Goggles . . . . 02 12-13/ Face Shield . . 03 14-15/ Special clothing 04 16-17/ Washing facilities . . . . 05 18-19/ Self contained or supplied air breathing apparatus . . 06 20-21/ NONE . . . . 07 22-23/	<b>5FF. SHOW PARTICIPANT HAND CARD E. Which of the following did you use on that job? CODE ALL THAT APPLY.</b>  Air filter . . . . 01 25-26/ Goggles . . . . 02 27-28/ Face Shield . . 03 29-30/ Special clothing . 04 31-32/ Washing facilities . . . . 05 33-34/ Self contained or supplied air breathing apparatus . . . . 06 35-36/ NONE . . . . 07 37-38/
SECOND COUNTRY	THIRD COUNTRY	FOURTH COUNTRY
<b>5K. Are there any other countries that you have been stationed in since (DATE OF LAST INTERVIEW)?</b>  YES. . . (GO BACK TO Q.5L: SECOND COUNTRY ON PAGE D-3) . 1 77/  NO. . . (SKIP TO SECTION E, PAGE E-1) . . 2	<b>5V. Are there any other countries that you have been stationed in since (DATE OF LAST INTERVIEW)?</b>  YES. . . (GO BACK TO Q.5W: THIRD COUNTRY ON PAGE D-3) 1 24/  NO. . . (SKIP TO SECTION E, PAGE E-1) . . 2	<b>5GG. Are there any other countries that you have been stationed in since (DATE OF LAST INTERVIEW)?</b>  YES. . . (USE NEW QUEX) . . . . 1 39/  NO. . . (SKIP TO SECTION E, PAGE E-1) . . 2

## SECTION E: MARITAL AND FERTILITY HISTORY

### FOR THIS SECTION YOU WILL NEED:

- HAND CARD G
- HAND CARD H
- CHILDREN'S RECORD FORM
- SUPPLEMENTARY CHILDREN'S RECORD FORM
- SELF-ADMINISTERED FORM 1

1. Now I would like to ask you about your personal relationships.

When we talked with you during the last interview (DATE OF LAST INTERVIEW), you said you were (MARITAL STATUS FROM ITEM 4 INFORMATION SHEET). Is that correct?

YES ..... (GO TO Q.1A) ..... 1 40/

NO ..... (REASK MARITAL STATUS AT TIME OF LAST INTERVIEW,  
UPDATE ITEM 4, GO TO Q.1A) ..... 2

MISSING .... (ASK MARITAL STATUS AT TIME OF LAST INTERVIEW,  
RECORD AT ITEM 4, GO TO Q.1A) ..... 3

1A. AT TIME OF LAST INTERVIEW, WAS STATUS "MARRIED" OR LIVING WITH SPOUSE?

YES ..... (SKIP TO Q.1F) ..... 1 41/

NO ..... (GO TO Q.1B) ..... 2

1B. IF NOT LIVING WITH PARTNER AT TIME OF LAST INTERVIEW, SKIP TO 1C, OTHERWISE ASK: When we talked with you during the last interview, you said you were living with a partner. Is that correct?

YES ..... (GO TO Q.1C) ..... 1

NO ..... (UPDATE ITEM 5, GO TO Q.1C) ..... 2

1C. WAS RESPONDENT "LIVING WITH PARTNER" AT TIME OF LAST INTERVIEW?

YES ..... (ASK Q.1D) ..... 1 42/

NO ..... (SKIP TO Q.3, PAGE E-5) ..... 2

1D. What is the name of the person you were living with at the time of the last interview? RECORD BELOW

LAST NAME

FIRST NAME

1E. In what month and year did you start living with (READ NAME FROM Q.1D)?  
(RECORD MONTH AND YEAR)

ENTER MONTH AND YEAR

\_\_\_\_ - \_\_\_\_  
MONTH YEAR

43-46/

SKIP TO QUESTION 2, PAGE E-3

1F. According to our records, you were married to (NAME OF SPOUSE FROM ITEM 6 ON INFORMATION SHEET). Is that correct?

YES ..... 1 47/

NO ..... (REASK NAME OF SPOUSE, UPDATE ITEM 6) ... 2

MISSING . . (ASK NAME OF SPOUSE, RECORD AT ITEM 6) .. 3

1G. In what month and year did you get married to (READ NAME OF SPOUSE)?

ENTER MONTH AND YEAR

		-		
MONTH			YEAR	

48-51/

2. Have you stopped living with (NAME OF SPOUSE OR PARTNER)?

YES ..... (ASK Q.2A) ..... 1
NO ... (SKIP TO Q.2C, PAGE E-4). . . 2

52/

2A. SHOW PARTICIPANT HAND CARD G. How did this (marriage/relationship) end? Choose one of the responses on the card.

SEPARATION ..... 1

53/

DIVORCE ..... 2

DEATH OF SPOUSE OR PARTNER ..... 3

2B. In what month and year did (READ RESPONSE FROM Q.2A) occur?

ENTER MONTH AND YEAR

MONTH		YEAR	

54-57/

- 2C. During this (marriage/relationship), how many times were you living apart from (NAME OF SPOUSE OR PARTNER) for 3 months or more since (DATE OF LAST INTERVIEW)? Each separation must have lasted at least 3 months or more. DO NOT INCLUDE A CURRENT MARITAL SEPARATION.

ENTER NUMBER OF TIMES:

58-59/

OR

NONE ... (SKIP TO Q.2N, PAGE E-5) ..... 00

- 2D. For how many months did you live apart the (first/next) time? Each separation must have lasted at least 3 months or more. DO NOT INCLUDE A CURRENT MARITAL SEPARATION.

FIRST/ONLY TIME:

60-61/

SECOND TIME:

62-63/

THIRD TIME:

64-65/

FOURTH TIME:

66-67/

- 2E. During this (marriage/relationship), [since the (DATE OF LAST INTERVIEW)], did you ever have a problem conceiving a child because of prolonged separation?

YES ..... 1

68/

NO ..... 2

SKIP TO Q.2N, PAGE E-5

BEGIN DECK 14  
10-34/R

2F. QUESTION DELETED.

2G. QUESTION DELETED.

35-61/R

2H. QUESTION DELETED.

62-74/R

2I. QUESTION DELETED.

BEGIN DECK 15  
10-44/R

2J. QUESTION DELETED.

45-46/R

2K. QUESTION DELETED.

47-71/R

2L. QUESTION DELETED.

BEGIN DECK 16  
10-36/R  
37-49/R

2M. QUESTION DELETED.

50-74/R

2N. HAS R STOPPED LIVING WITH SPOUSE OR PARTNER? IS "YES" CODED AT Q.2 ON PAGE E-3?

YES ..... 1 75/

NO ..... (SKIP TO Q.10, PAGE E-18) ..... 2

3. Since (DATE OF LAST INTERVIEW), have you done one of the following: (1) reconciled or married (again);  
or (2) lived with a partner for 3 months or more?

YES ..... (ASK Q.3A) ..... 1 76/

DID NEITHER ... (SKIP TO Q.10, PAGE E-18) ..... 2

3A. How many times have you been married or lived with a partner, for at least 3 months since (DATE OF LAST  
INTERVIEW)?

RECORD NUMBER OF TIMES:

77/



**FIRST RELATIONSHIP**

4. Thinking of (that/the first) relationship since (DATE OF LAST INTERVIEW), did you marry this person?

YES ..... 1 78/

NO ..... 2

RECONCILED ..... 3

4A. What is the current full name of (this partner/your wife)?

ID #

79-80/

\_\_\_\_\_  
(LAST)\_\_\_\_\_  
(FIRST)\_\_\_\_\_  
(MIDDLE)4A-1. RECORD FULL NAME OF (SPOUSE/PARTNER) AT ITEM 7 ON INFORMATION SHEET.  
RECORD ID# ABOVE.

BEGIN DECK 17

What was her full maiden name?

\_\_\_\_\_  
10-29/

4A-2. What was her birthdate? RECORD DATE:

MO

DA

YR

30-35/

4B. In what month and year did you (reconcile/get married to/start living with) (NAME FROM Q.4A)?

ENTER MONTH AND YEAR

 --   
MONTH YEAR

36-39/

4C. Have you stopped living with (NAME FROM Q.4A, PAGE E-6)?

YES ..... 1 40/

NO ..... (SKIP TO Q.4F) ..... 2

4D. SHOW PARTICIPANT HAND CARD G. How did this (marriage/relationship) end? Choose one of the responses on Card G.

SEPARATION ..... 1 41/

DIVORCE ..... 2

DEATH OF SPOUSE OR PARTNER ..... 3

4E. In what month and year did (RESPONSE FROM Q.4D) occur?

ENTER MONTH AND YEAR      -    
                                    MONTH        YEAR                                      42-45/

4F. During this (marriage/relationship), how many times were you living apart from (NAME FROM Q.4A) for 3 months or more since (DATE OF LAST INTERVIEW)?

ENTER NUMBER OF TIMES:   46-47/

OR

NONE . (SKIP TO Q.5, PAGE E-9) ..... 00

4G. For how many months did you live apart the (this/first/next) time?

FIRST/ONLY TIME:   48-49/

SECOND TIME:   50-51/

THIRD TIME:   52-53/

FOURTH TIME:   54-55/

4H. During this (marriage/relationship), [since the (DATE OF LAST INTERVIEW)], did you ever have a problem conceiving a child because of prolonged separation?

Yes ..... 1 56/

No ..... 2

SKIP TO Q.5, PAGE E-9.

4I. QUESTION DELETED. 57-80/R

4J. QUESTION DELETED. BEGIN DECK 18  
10-31/R  
32-36/R

4K. QUESTION DELETED. 37-49/R

4L. QUESTION DELETED. 50-80/R

4M. QUESTION DELETED. BEGIN DECK 19  
10-11/R

4N. QUESTION DELETED. 12-36/R  
37-63/R

40. QUESTION DELETED.

64-76/R  
77/R

4P. QUESTION DELETED.

BEGIN DECK 20  
10-34/R

5. IS THERE A SECOND RELATIONSHIP SINCE THE DATE OF LAST INTERVIEW? IS NUMBER OF  
TIMES RECORDED IN Q.3A, PAGE E-5, EQUAL TO 2 OR MORE?

YES . . . . . (GO TO Q.6, NEXT PAGE) . . . . .	1	35/
NO . . . . . (SKIP TO Q.10, PAGE E-18) . . . . .	2	

**SECOND RELATIONSHIP (SECOND MOST RECENT)**

6. Thinking of the next relationship since (DATE OF LAST INTERVIEW), did you marry this person?

YES ..... 1 36/

NO ..... 2

6A. What is the current full name of this person?

--	--

ID #  
37-38/\_\_\_\_\_  
(LAST)\_\_\_\_\_  
(FIRST) (MIDDLE)

6A-1. RECORD FULL NAME OF (SPOUSE/PARTNER) AT ITEM 7 ON INFORMATION SHEET. RECORD ID# ABOVE.

What was her full maiden name?

\_\_\_\_\_ 39-58/

6A-2. What was her birthdate? RECORD DATE:

--	--	--	--	--	--

59-64/

MO

DA

YR

6B. In what month and year did you (reconcile/get married to/start living with) (NAME FROM Q.6A)?

ENTER MONTH AND YEAR    

--	--

 -- 

--	--

  
MONTH                      YEAR

65-68/

6C. Have you stopped living with (NAME FROM Q.6A)?

YES ..... 1 69/

NO ..... (SKIP TO Q.6F) ..... 2

6D. SHOW PARTICIPANT HAND CARD G. How did this (marriage/relationship) end? Choose one of the responses on Card G.

SEPARATION ..... 1 70/

DIVORCE ..... 2

DEATH OF SPOUSE OR PARTNER ..... 3

6E. In what month and year did (RESPONSE FROM Q.6D) occur?

ENTER MONTH AND YEAR      --    
                                    MONTH            YEAR

71-74/

6F. During this (marriage/relationship), how many times were you living apart from (NAME FROM Q.6A) for 3 months or more since (DATE OF LAST INTERVIEW)?

ENTER NUMBER OF TIMES:

75-76/

OR

NONE . (SKIP TO Q.7, PAGE E-13) . . . . . 00

6G. For how many months did you live apart the (this/first/next) time?

FIRST/ONLY TIME:

77-78/

SECOND TIME:

79-80/

BEGIN DECK 21

THIRD TIME:

10-11/

FOURTH TIME:

12-13/

6H. During this (marriage/relationship), [since the (DATE OF LAST INTERVIEW)], did you ever have a problem conceiving a child because of prolonged separation?

YES . . . . . 1

14/

NO . . . . . 2

SKIP TO Q.7, PAGE E-13

6I. QUESTION DELETED.

15-39/R

6J. QUESTION DELETED.

40-66/R

6K. QUESTION DELETED.

67-79/R

6L. QUESTION DELETED.

BEGIN DECK 22

10-29/R

30-44/R

6M. QUESTION DELETED.

45-46/R

6N. QUESTION DELETED.

47-71/R

BEGIN DECK 23

10-29/R

30-36/R

60. QUESTION DELETED.

37-49/R

6P. QUESTION DELETED.

50/R  
51-75/R

7. IS THERE A THIRD RELATIONSHIP SINCE THE DATE OF LAST INTERVIEW?

IS NUMBER OF TIMES RECORDED IN Q.3A, PAGE E-5 EQUAL TO 3 OR MORE?

YES ..... (GO TO Q.8, NEXT PAGE) ..... 1

76/

NO ..... (SKIP TO Q.10, PAGE E-18) ..... 2



**THIRD RELATIONSHIP**

8. Thinking of the next relationship since (DATE OF LAST INTERVIEW), did you marry this person?

YES ..... 1 77/

NO ..... 2

8A. What is the current full name of this person?

ID #  
78-79/

\_\_\_\_\_  
(LAST)

\_\_\_\_\_  
(FIRST)

\_\_\_\_\_  
(MIDDLE)

8A-1. RECORD FULL NAME OF (SPOUSE/PARTNER) AT ITEM 7 ON INFORMATION SHEET.  
RECORD ID# ABOVE.

BEGIN DECK 24

What was her full maiden name?

\_\_\_\_\_ 10-29/

What was her birthdate? RECORD DATE:

30-35/

MO

DA

YR

8B. In what month and year did you (reconcile/get married to/start living with) (NAME FROM Q.8A)?

ENTER MONTH AND YEAR

 --   
MONTH YEAR

36-39/

8C. Have you stopped living with (NAME FROM Q.8A)?

YES ..... 1 40/

NO ..... (SKIP TO Q.8F) ..... 2

8D. SHOW PARTICIPANT HAND CARD G. How did this (marriage/relationship) end?  
Choose one of the responses on Card G.

SEPARATION ..... 1 41/

DIVORCE ..... 2

DEATH OF SPOUSE OR PARTNER ..... 3

8E. In what month and year did this occur?

ENTER MONTH AND YEAR      -    
   MONTH      YEAR

42-45/

8F. During this (marriage/relationship), how many times were you living apart from (NAME FROM Q.8A) for 3 months or more since (DATE OF LAST INTERVIEW)?

ENTER NUMBER OF TIMES:

46-47/

OR

NONE . (GO TO Q.9, PAGE E-17) . . . . . 00

8G. For how many months did you live apart the (this/first/next) time?

FIRST/ONLY TIME:

48-49/

SECOND TIME:

50-51/

THIRD TIME:

52-53/

FOURTH TIME:

54-55/

8H. During this (marriage/relationship), [since the (DATE OF LAST INTERVIEW)], did you ever have a problem conceiving a child because of prolonged separation?

YES . . . . . 1

56/

NO . . . . . 2

SKIP TO Q.9, PAGE E-17

8I. QUESTION DELETED.

57-80/R

8J. QUESTION DELETED.

BEGIN DECK 25  
10-36/R

8K. QUESTION DELETED.

37-49/R

8L. QUESTION DELETED.

50-74/R

8M. QUESTION DELETED.

75-76/R

8N. QUESTION DELETED.

BEGIN DECK 26  
10-34/R  
35-61/R

80. QUESTION DELETED.

62-74/R  
75/R

8P. QUESTION DELETED.

BEGIN DECK 27  
10-34/R

9. IS THERE A FOURTH RELATIONSHIP SINCE THE DATE OF LAST INTERVIEW?

IS NUMBER OF TIMES RECORDED IN Q.3A, EQUAL TO 4 OR MORE?

YES ..... (GO TO NEW QUESTIONNAIRE) ..... 1

35/

NO ..... 2

10. NOW YOU WILL VERIFY BIOLOGICAL CHILDREN USING CHILDREN'S RECORD FORM: THIS FORM INCLUDES R'S BIOLOGICAL CHILDREN AS OF DATE OF LAST INTERVIEW.

ARE CHILDREN LISTED ON CHILDREN'S RECORD FORM?

YES ..... (ASK Q.10A) ..... 1 36/

NO ..... (ASK Q.10B) ..... 2

- 10A. I'd like to read information about your (child/children) from our last interview to check our records. As of (DATE OF LAST INTERVIEW), our records show that you have had (NUMBER OF CHILDREN).

NEXT, READ EACH CHILD'S FULL NAME, SEX, AND BIRTHDATE AND MOTHER'S NAME.  
Is that correct?

YES, CHILDREN ARE CORRECT.  
IF INFORMATION IS CORRECT ..... (GO TO Q.11) ..... 1 37/

NO. . . . (IF INFORMATION IS INCOMPLETE,  
MAKE CORRECTIONS FOR EACH CHILD  
ON CHILDREN'S RECORD FORM.  
CORRECT FULL NAME, SEX, DOB,  
MOTHER'S MAIDEN NAME. THEN GO TO Q.11) ..... 2

- 10B. Our records show that you had not had any children of your own as of (DATE OF LAST INTERVIEW).  
Is that correct?

YES, IF INFORMATION IS CORRECT ..... (GO TO Q.12) ... 1 38/

NO/MISSING . . (IF CHILDREN MISSING, ADD TO CHILDREN'S  
RECORD FORM. RECORD BEGINNING  
AT LINE 01 ON CHILDREN'S  
RECORD FORM. THEN GO TO Q.11) ..... 2

11. NOW YOU WILL UPDATE EACH CHILD'S AGE. ASK THIS QUESTION FOR EACH CHILD LISTED ON CHILDREN'S RECORD FORM FOR WHOM THERE IS NO DEATH DATE: What is (READ NAME OF 1ST CHILD/NAME OF 2ND CHILD, SO FORTH)'s current age? UPDATE AGE ON CHILDREN'S RECORD FORM.

NOW YOU WILL ASK IF ANY OF THE CHILDREN HAVE DIED: Have any of your children died since (DATE OF LAST INTERVIEW)? FOR EACH CHILD THAT DIED, RECORD CHILD ID# IN QUESTIONNAIRE AND ASK QUESTIONS 11A THROUGH 11C. IF NO CHILDREN HAVE DIED, SKIP TO Q.12.

- 11A. FOR EACH DECEASED CHILD ASK: When did (NAME OF CHILD) die? RECORD DAY, MONTH, AND YEAR ON CHILDREN'S RECORD FORM.

- 11B. What was the cause of death? RECORD BELOW.

BEGIN DECK 28

- 11C. Where is (CHILD)'s death registered? In what city and state? RECORD BELOW.

CHILD ID: <input type="text"/> <input type="text"/> <input type="text"/> 39-40/	CHILD ID: <input type="text"/> <input type="text"/> <input type="text"/> 60-61/	CHILD ID: <input type="text"/> <input type="text"/> <input type="text"/> 10-11/
CAUSE: _____ 41/	CAUSE: _____ 62/	CAUSE: _____ 12/
REGISTRATION: _____ CITY 42-57/	REGISTRATION: _____ CITY 63-78/	REGISTRATION: _____ CITY 13-28/
STATE 58-59/	STATE 79-80/	STATE 29-30/

12. HAS R BEEN MARRIED OR HAD A PARTNER FOR 3 MONTHS OR MORE SINCE (DATE OF LAST INTERVIEW)? VERIFY WITH R.

YES ..... (ASK Q.12A) ..... 1 31/

NO ..... (SKIP TO SECTION F, PAGE F-1) ..... 2

12A. Has/Have (your wife/any of your partners) become pregnant by you since (DATE OF LAST INTERVIEW)? This includes pregnancies that began before (DATE OF LAST INTERVIEW) and ended after (DATE OF LAST INTERVIEW).

YES ..... (ASK Q.12B) ..... 1 32/

NO ..... (SKIP TO Q.25, PAGE E-35) ..... 2

12B. How many pregnancies (has your wife/have your partners) had with you since (DATE OF LAST INTERVIEW)?

ENTER NUMBER OF PREGNANCIES:

33-34/

**FIRST PREGNANCY**

13. When did the first pregnancy begin? What month and year?

ENTER MONTH AND YEAR

--    
MONTH YEAR

35-38/

13A. HAS R HAD MORE THAN ONE RELATIONSHIP SINCE DATE OF LAST INTERVIEW? IS "YES"  
CODED AT Q.3, PAGE E-5?)

YES ..... (ASK Q.13B) ..... 1

39/

NO ..... (SKIP TO Q.13C) ..... 2

13B. Which (spouse/partner) had this pregnancy?

RECORD NAME:

40-64/

(LAST)

(MAIDEN)

(FIRST)

(MIDDLE)

RECORD ID # FROM INFORMATION SHEET.

65-66/



13C. How many months did it take (NAME OF SPOUSE/PARTNER) to become pregnant (this time)?

RECORD MONTHS   AND/OR   67-68/  
AND/OR YEARS MOS YRS  
WASN'T TRYING ..... 00 69-70/  
OR  
DON'T KNOW ..... 98

13D. Were either you or (NAME OF SPOUSE/PARTNER) using birth control at the time she became pregnant?

YES ..... (ASK Q.13E) ..... 1 71/  
NO ..... (SKIP TO Q.14) ..... 2

13E. SHOW PARTICIPANT HAND CARD H. Please look at this card and tell me all the numbers of the types of birth control you and (NAME FROM Q.13B) were using when she became pregnant. CODE ALL THAT APPLY.

1. PILL .....	01	72-73/
2. DOUCHE .....	02	74-75/
3. FOAM .....	03	76-77/
4. JELLY, CREAM, SUPPOSITORY .....	04	78-79/
		BEGIN DECK 29
5. IUD .....	05	10-11/
6. CONDOM, RUBBER .....	06	12-13/
7. DIAPHRAGM .....	07	14-15/
8. DIAPHRAGM AND JELLY .....	08	16-17/
9. SPONGE .....	09	18-19/
10. RHYTHM - CALENDAR .....	10	20-21/
11. RHYTHM - TEMPERATURE .....	11	22-23/
12. WITHDRAWAL .....	12	24-25/
13. OTHER (SPECIFY) _____		
	13	26-27/
DON'T KNOW .....	98	28-29/

14. Did that pregnancy result in a live birth; or in a miscarriage, stillbirth, or abortion, [or is (NAME) still pregnant]?

LIVE BIRTH ..... 1 30/

MISCARRIAGE.....(SKIP TO Q.16) ..... 2  
STILLBIRTH.....(SKIP TO Q.16) ..... 3

ABORTION.....(SKIP TO Q.16) ..... 4  
STILL PREGNANT .....(SKIP TO Q.25, PAGE E-35) ..... 5

- 14A. What is the first and last name of the child as it appears on the birth certificate?  
RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

RECORD ID FROM SUPPLEMENTARY CHILDREN'S RECORD FORM

31-32/

- 14B. When was (CHILD) born? ENTER BIRTHDATE ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

- 14C. Was (CHILD) male or female? RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

- 14D. How much did (CHILD) weigh at birth?

ENTER POUNDS:

33-34/

AND

OUNCES:

35-36/

OR

DON'T KNOW ..... 98

- 14E. Was (CHILD) a twin?

YES ..... 1

37/

NO ..... 2

- 14F. Was (CHILD) premature, full term, or overdue?

PREMATURE ..... 1

38/

FULL TERM ..... 2

OVERDUE ..... 3

DON'T KNOW ..... 8

- 14G. How old was (NAME OF MOTHER) when (CHILD) was born?

RECORD AGE:

39-40/

DON'T KNOW ..... 98

14H. What is the name and address of the hospital where this child was born? RECORD BELOW

41/

\_\_\_\_\_  
NAME OF HOSPITAL

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
(CITY) \_\_\_\_\_ (STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM

14I. What is the name and address of the doctor or medical facility who has (CHILD)'s current medical records? RECORD BELOW.

42/

\_\_\_\_\_  
DOCTOR'S NAME OR FACILITY NAME

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
(CITY) \_\_\_\_\_ (STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM

14J. Is this child still living? IF NO, SKIP TO Q.14K. IF YES, ASK: What is child's current age?  
RECORD AGE ON SUPPLEMENT CHILDREN'S FORM. SKIP TO Q.15.

14K. When did (CHILD) die?

RECORD DAY, MONTH, AND YEAR ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

14L. What was the cause of death? RECORD BELOW.

43/

14M. Where is (CHILD'S) death registered? In what city and state?

\_\_\_\_\_  
(CITY) \_\_\_\_\_ (STATE)

44-59/  
60-61/

15. IS THERE A SECOND PREGNANCY SINCE THE DATE OF LAST INTERVIEW? IS NUMBER OF PREGNANCIES IN Q.12B ON PAGE E-20 EQUAL TO 2 OR MORE?

YES ..... (SKIP TO Q.17) ..... 1 62/

NO ..... (SKIP TO Q.25, PAGE E-35) ..... 2

16. When did that pregnancy end?

RECORD DATE:       63-68/  
MO DA YR

16A. How many weeks had (NAME FROM Q.13B) been pregnant when that happened?

ENTER NUMBER OF WEEKS:   69-70/

DON'T KNOW ..... 98

16B. IF CODE "2" OR "3" IN Q.14, MISCARRIAGE OR STILLBIRTH, ASK Q.16B-C. OTHERS GO TO Q.16D. Did a doctor tell you why this (miscarriage/stillbirth) might have occurred?

YES ..... (ASK Q.16C) ..... 1 71/

NO ..... (SKIP TO Q.16D) ..... 2

16C. What did the doctor say caused the (miscarriage/stillbirth)? RECORD VERBATIM.

72/

16D. IS THERE A SECOND PREGNANCY SINCE DATE OF LAST INTERVIEW? IS NUMBER OF PREGNANCIES IN Q.12B ON PAGE E-20 EQUAL TO 2 OR MORE?

YES ..... (GO TO Q.17) ..... 1 73/

NO ..... (SKIP TO Q.25, PAGE E-35) . 2

**SECOND PREGNANCY**

17. When did the next pregnancy begin? What month and year?

ENTER MONTH AND YEAR   -    
MONTH YEAR

74-77/

17A. HAS R HAD MORE THAN ONE RELATIONSHIP SINCE DATE OF LAST INTERVIEW?  
(SEE ITEM 7, INFORMATION SHEET.)

YES ..... (ASK Q.17B) ..... 1

78/

NO ..... (SKIP TO Q.17C) ..... 2

BEGIN DECK 30

17B. Which (spouse/partner) had this pregnancy?

RECORD NAME: \_\_\_\_\_  
(LAST)

10-34/

\_\_\_\_\_  
(FIRST)\_\_\_\_\_  
(MIDDLE)

RECORD ID # FROM INFORMATION SHEET.

35-36/

17C. How many months did it take (NAME OF SPOUSE/PARTNER) to become pregnant (this time)?

RECORD MONTHS   AND/OR    
AND/OR YEARS MOS YRS

37-38/

WASN'T TRYING ..... 00

39-40/

OR

DON'T KNOW ..... 98

17D. Were either you or (NAME OF SPOUSE/PARTNER) using birth control at the time she became pregnant?

YES ..... (ASK Q.17E) ..... 1

41/

NO ..... (SKIP TO Q.18, PAGE E-27) ..... 2

17E. SHOW PARTICIPANT HAND CARD H. Please look at card H again and tell me all the numbers of the types of birth control you and (NAME FROM Q.17B) were using when she became pregnant. CODE ALL THAT APPLY.

1. PILL .....	01	42-43/
2. DOUCHE .....	02	44-45/
3. FOAM .....	03	46-47/
4. JELLY, CREAM, SUPPOSITORY .....	04	48-49/
5. IUD .....	05	50-51/
6. CONDOM, RUBBER .....	06	52-53/
7. DIAPHRAGM .....	07	54-55/
8. DIAPHRAGM AND JELLY .....	08	56-57/
9. SPONGE .....	09	58-59/
10. RHYTHM - CALENDAR .....	10	60-61/
11. RHYTHM - TEMPERATURE .....	11	62-63/
12. WITHDRAWAL .....	12	64-65/
13. OTHER (SPECIFY) .....		
	13	66-67/
DON'T KNOW .....	98	68-69/

18. Did that pregnancy result in a live birth; or in a miscarriage, stillbirth, or abortion, [or is (NAME) still pregnant]?

LIVE BIRTH ..... 1 70/

MISCARRIAGE.....(SKIP TO Q.20) ..... 2  
STILLBIRTH.....(SKIP TO Q.20) ..... 3

ABORTION.....(SKIP TO Q.20) ..... 4  
STILL PREGNANT .....(SKIP TO Q.25, PAGE 35) ..... 5

18A. What is the first and last name of the child as it appears on the birth certificate?  
RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

RECORD ID FROM SUPPLEMENTARY CHILDREN'S RECORD FORM ☐☐ 71-72/

18B. When was (CHILD) born? ENTER BIRTHDATE ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

18C. Was (CHILD) male or female? RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

18D. How much did (CHILD) weigh at birth?

ENTER POUNDS:   73-74/  
 AND  
 OUNCES:   75-76/  
 OR  
 DON'T KNOW ..... 98

18E. Was (CHILD) a twin?

YES ..... 1 77/  
 NO ..... 2

18F. Was (CHILD) premature, full term, or overdue?

PREMATURE ..... 1 78/  
 FULL TERM ..... 2  
 OVERDUE ..... 3  
 DON'T KNOW ..... 8

18G. How old was (NAME OF MOTHER) when (CHILD) was born?

RECORD AGE:   79-80/  
 Don't know ..... 98

18H. What is the name and address of the hospital where this child was born? RECORD BELOW

NAME OF HOSPITAL

STREET ADDRESS

(CITY)

(STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM

18I. What is the name and address of the doctor or medical facility who has (CHILD)'s current medical records?  
RECORD BELOW.

\_\_\_\_\_  
DOCTOR'S-NAME OR FACILITY NAME

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
(CITY) (STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM.

18J. Is this child still living? IF NO, SKIP TO Q.18K. IF YES, ASK: What is child's current age? RECORD  
AGE ON SUPPLEMENT CHILDREN'S FORM. SKIP TO Q.19.

18K. When did (CHILD) die? RECORD DAY, MONTH, AND YEAR ON SUPPLEMENTARY CHILDREN'S  
RECORD FORM.

18L. What was the cause of death? RECORD BELOW.

BEGIN DECK 31

10/

18M. Where is (CHILD'S) death registered? In what city and state?

\_\_\_\_\_  
(CITY) (STATE)

11-26/

27-28/

19. IS THERE A THIRD PREGNANCY SINCE THE DATE OF LAST INTERVIEW? IS NUMBER OF  
PREGNANCIES IN Q.12B ON PAGE E-20 EQUAL TO 3 OR MORE?

YES ..... (SKIP TO Q.21) ..... 1

29/

NO ..... (SKIP TO Q.25, PAGE E-35) ..... 2

20. When did that pregnancy end?

RECORD DATE:       30-35/  
MO DA YR

20A. How many weeks had (NAME FROM Q.17B, PAGE E-26) been pregnant when that happened?

ENTER NUMBER OF WEEKS:   36-37/  
DON'T KNOW ..... 98



20B. IF CODE "2" OR "3" IN Q.18, MISCARRIAGE OR STILLBIRTH, ASK Q.20B-C; OTHERS GO TO Q.20D.  
Did a doctor tell why this (miscarriage/stillbirth) might have occurred?

YES ..... (ASK Q.20C) ..... 1

38/

NO ..... (SKIP TO Q.20D) ..... 2

20C. What did the doctor say caused the (miscarriage/stillbirth)? RECORD VERBATIM.

39/

20D. IS THERE A THIRD PREGNANCY SINCE DATE OF LAST INTERVIEW? IS NUMBER OF  
PREGNANCIES IN Q.12B ON PAGE E-20 EQUAL TO 2 OR MORE?

YES ..... (GO TO Q.21) ..... 1

40/

NO ..... (SKIP TO Q.25, PAGE E-35) . 2

**THIRD PREGNANCY**

21. When did the next pregnancy begin? What month and year?

ENTER MONTH AND YEAR      -    
   MONTH      YEAR

41-44/

21A. HAS R HAD MORE THAN ONE RELATIONSHIP SINCE DATE OF LAST INTERVIEW? (SEE ITEM 7, INFORMATION SHEET.)

YES ..... (ASK Q.21B) ..... 1

45/

NO ..... (SKIP TO Q.21C) ..... 2

21B. Which (spouse/partner) had this pregnancy?

RECORD NAME:

\_\_\_\_\_  
(LAST)                      (MAIDEN)  
  
\_\_\_\_\_  
(FIRST)                      (MIDDLE)

46-70/

RECORD ID # FROM INFORMATION SHEET.

71-72/

21C. How many months did it take (NAME OF SPOUSE/PARTNER) to become pregnant (this time)?

RECORD MONTHS   AND/OR    
AND/OR YEARS      MOS                      YRS

73-74/

WASN'T TRYING ..... 00

75-76/

OR

DON'T KNOW ..... 98

21D. Were either you or (NAME OF SPOUSE/PARTNER) using birth control at the time she became pregnant?

YES ..... (ASK Q.21E) ..... 1

77/

NO ..... (SKIP TO Q.22) ..... 2

21E. SHOW PARTICIPANT HAND CARD H. Please look at card H again and tell me all the numbers of the types of birth control you and (NAME FROM Q.21B) were using when she became pregnant. CODE ALL THAT APPLY.

	BEGIN DECK 32
1. PILL .....	01 10-11/
2. DOUCHE .....	02 12-13/
3. FOAM .....	03 14-15/
4. JELLY, CREAM, SUPPOSITORY .....	04 16-17/
5. IUD .....	05 18-19/
6. CONDOM, RUBBER .....	06 20-21/
7. DIAPHRAGM .....	07 22-23/
8. DIAPHRAGM AND JELLY .....	08 24-25/
9. SPONGE .....	09 26-27/
10. RHYTHM - CALENDAR .....	10 28-29/
11. RHYTHM - TEMPERATURE .....	11 30-31/
12. WITHDRAWAL .....	12 32-33/
13. OTHER (SPECIFY) .....	

.....	13 34-35/
DON'T KNOW .....	98 36-37/

22. Did that pregnancy result in a live birth; or in a miscarriage, stillbirth, or abortion, [or is (NAME) still pregnant]?

LIVE BIRTH ..... 1 38/

MISCARRIAGE.....(SKIP TO Q.24) .....	2
STILLBIRTH.....(SKIP TO Q.24) .....	3

ABORTION.....(SKIP TO Q.24) ..... 4  
STILL PREGNANT .....(SKIP TO Q.25, PAGE E-35) ..... 5

22A. What is the first and last name of the child as it appears on the birth certificate?  
RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

RECORD ID FROM SUPPLEMENTARY CHILDREN'S RECORD FORM:

39-40/

22B. When was (CHILD) born? ENTER BIRTHDATE ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

22C. Was (CHILD) male or female? RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

22D. How much did (CHILD) weigh at birth?

ENTER POUNDS:   41-42/  
AND  
OUNCES:   43-44/  
OR  
DON'T KNOW ..... 98

22E. Was (CHILD) a twin?

YES ..... 1 45/  
NO ..... 2

22F. Was (CHILD) premature, full term, or overdue?

PREMATURE ..... 1 46/  
FULL TERM ..... 2  
OVERDUE ..... 3  
DON'T KNOW ..... 8

22G. How old was (NAME OF MOTHER) when (CHILD) was born?

RECORD AGE:   47-48/  
DON'T KNOW ..... 98

22H. What is the name and address of the hospital where this child was born? RECORD BELOW

NAME OF HOSPITAL

STREET ADDRESS

(CITY)

(STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM

- 22I. What is the name and address of the doctor or medical facility who has (CHILD)'s current medical records? RECORD BELOW.

\_\_\_\_\_  
DOCTOR'S NAME OR FACILITY NAME

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
(CITY) (STATE)

RECORD NAME AND ADDRESS ON MEDICAL CONSENT FORM

- 22J. Is this child still living? IF NO, SKIP TO Q.22K. IF YES, ASK: What is child's current age? RECORD AGE ON SUPPLEMENT CHILDREN'S FORM. SKIP TO Q.23.

- 22K. When did (CHILD) die? RECORD DAY, MONTH, AND YEAR ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

- 22L. What was the cause of death? RECORD BELOW.

49/

- 22M. Where is (CHILD'S) death registered? In what city and state?

\_\_\_\_\_  
(CITY) (STATE)

23. IS THERE A FOURTH PREGNANCY SINCE THE DATE OF LAST INTERVIEW? IS NUMBER OF PREGNANCIES IN Q.12B EQUAL TO 4 OR MORE?

YES ..... (GO TO NEW QUESTIONNAIRE) ..... 1

68/

NO ..... (SKIP TO Q.25, PAGE E-35) ..... 2

24. When did that pregnancy end?

RECORD DATE: \_\_\_\_  
MO DA YR

69-74/

- 24A. How many weeks had (NAME FRgnant when that happened?

ENTER NUMBER OF WEEKS:

75-76/

DON'T KNOW ..... 98

- 24B. IF CODE "2" OR "3" IN Q.22, MISCARRIAGE OR STILLBIRTH, ASK Q.24B AND Q.24C. OTHERS GO TO Q.24D. Did a doctor tell why this (miscarriage/stillbirth) might have occurred?

YES ..... (ASK Q.24C) ..... 1

77/

NO ..... (SKIP TO Q.24D) ..... 2

- 24C. What did the doctor say caused the (miscarriage/stillbirth)? RECORD VERBATIM.

78/

- 24D. IS THERE A FOURTH PREGNANCY SINCE DATE OF LAST INTERVIEW? IS NUMBER OF PREGNANCIES IN Q.12B ON PAGE E-20 EQUAL TO 4 OR MORE?

**YES . . . . . (GO TO NEW QUESTIONNAIRE) . . . . . 1**

79/

**NO . . . . . (GO TO Q.25) . . . . . 2**

25. Since (DATE OF LAST INTERVIEW) have you ever tried for a period of one year or more, to conceive a child and were not able to do so?

**YES** ..... **1**

**BEGIN DECK 33**

10/

NO . . . . . (SKIP TO SECTION F, PAGE F-1) . . . . . 2

26. For how many periods of one year or more did this happen? (PROBE: Was it one period, two periods. . ?)

ONE ..... 1

11/

TWO ..... 2

THREE . . . . . 3

FOUR ..... 4

27. Since (DATE OF LAST INTERVIEW), in what month and year did the first period begin?  
And in what month and year did it end?

**BEGIN      12-15/      END**

16-19/

MONTH -- YEAR MONTH -- YEAR OR HAS NOT  
 ENDED..... 0000

- 28. During this first period, what was your wife or partner's first name? RECORD BELOW.**

**20-33V**

ID#

**34-35/**

29. How old was (NAME OF WIFE/PARTNER) in (BEGINNING DATE OF PERIOD)?

**RECORD AGE:**

36-37/

30. During this first period, did either of you see a doctor to discuss any difficulties in conceiving children?

YES ..... 1 38/

NO ..... 2

31. ON BLUE SELF ADMINISTERED FORM 1, CODE "PERIOD 1." GIVE BLUE FORM TO R, AND READ THESE INSTRUCTIONS.

There are many reasons that some couples find it difficult or impossible to conceive a child. Please read this form and circle the number on Side A for each reason which applied to you for this period. Side B provides reasons appropriate for your spouse. Circle as many responses as appropriate for you and your spouse.

Now please fill out Side A for yourself and Side B for your spouse on this form.

32. IS THERE A SECOND PERIOD OF INFERTILITY SINCE DATE OF LAST INTERVIEW? IS Q.26 ON PAGE E-35 CODED "TWO" OR MORE?

YES ..... (GO TO Q.33) ..... 1 39/

NO ..... (INSTRUCT R TO PUT SELF-ADMINISTERED FORM 1 IN ENVELOPE AND SKIP TO SECTION F, PAGE F-1) ..... 2

33. Since (DATE OF LAST INTERVIEW), in what month and year did the second period begin? And in what month and year did it end?

BEGIN 40-43/ END 44-47/

OR HAS NOT

\_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ ENDED..... 0000

MONTH YEAR MONTH YEAR

34. During this second period, what was your wife or partner's first name? RECORD BELOW.

\_\_\_\_\_

☐ ☐

48-61/

ID# 62-63/

35. How old was (NAME OF WIFE/PARTNER) in (BEGINNING DATE OF PERIOD)?

RECORD AGE:

☐ ☐

64-65/

36. During this second period, did either of you see a doctor to discuss any difficulties in conceiving children?

YES ..... 1 66/

NO ..... 2

**37. CODE "PERIOD 2" AND ASK PARTICIPANT TO READ SELF-ADMINISTERED FORM 1. READ INSTRUCTIONS BELOW.**

**There are many reasons that some couples find it difficult or impossible to conceive a child. Please read this form and circle the number on Side A for each reason which applied to you for this period. Side B provides reasons appropriate for your spouse. Circle as many responses as appropriate for you and your spouse.**

**Now please fill out Side A for yourself and Side B for your spouse on this form.**

38. IS THERE A THIRD PERIOD OF INFERTILITY SINCE DATE OF LAST INTERVIEW? (IS Q.26 CODED "THREE" OR MORE?)

**YES . . . . (GO TO Q.39) . . . . . 1 67/**

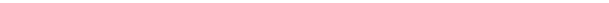


**NO ..... (INSTRUCT R TO PUT SELF-  
ADMINISTERED FORM 1  
IN ENVELOPE AND SKIP  
TO SECTION F, PAGE F-1) ..... 2**

39. Since (DATE OF LAST INTERVIEW), in what month and year did the third period begin?  
And in what month and year did it end?

BEGIN 68-71/ END 72-75/  
 OR HAS NOT  
 ENDED..... 0000  
 MONTH YEAR MONTH YEAR

**BEGIN DECK 34**

40. During this second period, what was your wife or partner's first name? RECORD BELOW.




10-23/  
ID# 24-25/

41. How old was (NAME) in (BEGINNING DATE OF PERIOD)?

RECORD AGE: ☐ ☐ 26-27/

42. During this third period, did either of you see a doctor to discuss any difficulties in conceiving children?

**YES** ..... 1 **28/**

**NO** ..... 2

B-73



43. **CODE "PERIOD 3" AND ASK PARTICIPANT TO READ SELF ADMINISTERED FORM 1.  
READ INSTRUCTIONS BELOW.**

There are many reasons that some couples find it difficult or impossible to conceive a child. Please read this form and circle the number on Side A for each reason which applied to you for this period. Side B provides reasons appropriate for your spouse. Circle as many responses as appropriate for you and your spouse.

Now please fill out Side A for yourself and Side B for your spouse on this form.

44. **IS THERE A FOURTH PERIOD OF INFERTILITY SINCE DATE OF LAST INTERVIEW? (IS Q.26 CODED "FOUR" OR MORE?)**

YES ..... (GO TO NEW QUESTIONNAIRE) ..... 1

NO ..... (INSTRUCT R TO PUT SELF-  
ADMINISTERED FORM 1  
IN ENVELOPE AND SKIP  
TO SECTION F, PAGE F-1) ..... 2

## SECTION F: CHILD AND FAMILY HEALTH

FOR THIS SECTION YOU WILL NEED:

- HAND CARD I
- INTERVAL SUPPLEMENTAL RECORDING BOOK (I.S.R.B.)

1. Now I would like to ask you some questions about birth defects in your family. By birth defects I mean a physical abnormality present (though not necessarily noticed) at the time of birth. Birth defects range in severity from unusual birthmarks to a missing or mishapen limb. Birth defects can affect any part of the body, including bones, body organs such as kidneys or the heart, reproductive and respiratory systems, blood, and the skin.

INTERVIEWER: HAS RESPONDENT HAD ANY BIOLOGICAL CHILDREN?

YES ..... 1 29/

NO... (SKIP TO INSTRUCTION 12  
BOX ABOVE Q.22, PAGE F-14) ..... 2

1A. ARE CHILDREN RECORDED ON CHILDREN'S RECORD FORM?

YES ..... (ASK Q.1B) ..... 1 30/

NO ..... (SKIP TO Q.2B) ..... 2

1B. FOR EACH CHILD LISTED ON CHILDREN'S RECORD FORM ASK: Our records indicate that (READ CHILD'S NAME)(had/did not have) a birth defect at the time you were last interviewed. Is this information correct?

YES, IF INFORMATION IS CORRECT... (GO TO Q.2, PAGE F-2) ... 1 31/

NO, IF INFORMATION IS INCORRECT, UPDATE  
CHILDREN'S RECORD FORM, THEN GO TO Q.2, PAGE F-2 ..... 2

MISSING ..... 8

2. CHILDREN'S RECORD FORM HAS INFORMATION FOR CHILDREN PREVIOUSLY REPORTED. THESE ARE CHILDREN BORN TO PARTICIPANT AS OF DATE OF LAST INTERVIEW.

FOR EACH CHILD ON RECORD FORM (EXCEPT CHILDREN WHO DIED BEFORE DATE OF LAST INTERVIEW), ASK:

- 2A-1. Has any new defect, impairment or cancer been identified in (READ CHILD'S NAME) since our last interview, that is, since (READ DATE OF LAST INTERVIEW)? RECORD ON CHILDREN'S RECORD FORM.
- 2A-2. IF DEFECTS, IMPAIRMENTS, OR CANCER EXISTS PREVIOUSLY ASK: Has any change occurred in the condition for previously existing defects, impairments, or cancer for (CHILD) since (DATE OF LAST INTERVIEW)? RECORD ON CHILDREN'S RECORD FORM.

IF NO NEW DEFECT, IMPAIRMENT, OR CANCER, AND NO CHANGE IN CONDITION FOR CHILD, REASK Q.2 AND Q.2A FOR EACH CHILD.

- 2B. SUPPLEMENTARY CHILDREN'S RECORD FORM HAS INFORMATION FOR CHILDREN BORN TO PARTICIPANT SINCE THE DATE OF LAST INTERVIEW.

FOR EACH CHILD ON SUPPLEMENTARY CR FORM, ASK:

Has a defect, impairment or cancer been identified in (READ CHILD'S NAME)?

RECORD ON SUPPLEMENTARY CHILDREN'S RECORD FORM.

3. ASK QUESTIONS 4-20 FOR EACH CHILD WITH CANCER, DEFECT, OR IMPAIRMENT OR ANY CHANGE IN PREVIOUS CONDITION(S), INCLUDING ALL WHO MAY HAVE DIED AFTER DATE OF LAST INTERVIEW.

IF NONE OF THE CHILDREN HAVE CANCER, A BIRTH DEFECT, OR IMPAIRMENT, SKIP TO INSTRUCTION BOX ABOVE Q.22.

B-77

May 15, 1992

16:03 pm

Field Version 1.1

	1ST CHILD	2ND CHILD																																
<b>CHILD'S NAME:</b>																																		
<b>CHILD'S ID#</b>	<input type="text"/> <input type="text"/> 32-33/	<input type="text"/> <input type="text"/> 49-50/																																
<b>MOTHER'S ID#</b>	<input type="text"/> <input type="text"/> 34-35/	<input type="text"/> <input type="text"/> 51-52/																																
4. Was (READ CHILD'S NAME) (ever/since/last interview) diagnosed as having cancer?	YES ..... 1 36/ NO ..... (GO TO Q.5) ..... 2	YES ..... 1 53/ NO ..... (GO TO Q.5) ..... 2																																
5. Was (CHILD) (ever/since last interview) diagnosed as having a ... (READ EACH CATEGORY).	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td></td> </tr> <tr> <td>Learning Disability .....</td> <td>1</td> <td>2</td> <td>37/</td> </tr> <tr> <td>Physical or Motor Impairment .....</td> <td>1</td> <td>2</td> <td>38/</td> </tr> <tr> <td>Mental Impairment .....</td> <td>1</td> <td>2</td> <td>39/</td> </tr> </table>		YES	NO		Learning Disability .....	1	2	37/	Physical or Motor Impairment .....	1	2	38/	Mental Impairment .....	1	2	39/	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td></td> </tr> <tr> <td>Learning Disability .....</td> <td>1</td> <td>2</td> <td>54/</td> </tr> <tr> <td>Physical or Motor Impairment .....</td> <td>1</td> <td>2</td> <td>55/</td> </tr> <tr> <td>Mental Impairment .....</td> <td>1</td> <td>2</td> <td>56/</td> </tr> </table>		YES	NO		Learning Disability .....	1	2	54/	Physical or Motor Impairment .....	1	2	55/	Mental Impairment .....	1	2	56/
	YES	NO																																
Learning Disability .....	1	2	37/																															
Physical or Motor Impairment .....	1	2	38/																															
Mental Impairment .....	1	2	39/																															
	YES	NO																																
Learning Disability .....	1	2	54/																															
Physical or Motor Impairment .....	1	2	55/																															
Mental Impairment .....	1	2	56/																															
6. INTERVIEWER: HAS ANY CANCER, DEFECT OR IMPAIRMENT BEEN IDENTIFIED IN CHILD? CHECK CHILDREN'S RECORD FORM OR SUPPLEMENTAL FORM. IF YES, ASK Q.7. IF NO, ASK Q.6A.	<p>40-44/R</p> <p>YES ..... (GO TO Q.7) ..... 1 45/ NO ..... (ASK Q.6A) ..... 2</p>	<p>57-61/R</p> <p>YES ..... (GO TO Q.7) ..... 1 62/ NO ..... (ASK Q.6A) ..... 2</p>																																
6A. INTERVIEWER: IS THERE ANOTHER CHILD?	<p>YES ..... (Q.4 AND 5 FOR NEXT CHILD) ..... 1 46/ NO ..... (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) ..... 2</p>	<p>YES ..... (Q.4 AND 5 FOR NEXT CHILD) ..... 1 63/ NO ..... (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) ..... 2</p>																																
7. What kind of birth defect or impairment (does/did) (CHILD) have? Any others?	<p>_____</p> <p>_____</p> <p>47/</p>	<p>_____</p> <p>_____</p> <p>64/</p>																																
8. Did you or someone else discuss (CHILD'S) birth defect or impairment with a doctor?	<p>YES ..... (GO TO Q.9) ..... 1 48/ NO ..... (SKIP TO Q.11) ..... 2</p>	<p>YES ..... (GO TO Q.9) ..... 1 65/ NO ..... (SKIP TO Q.11) ..... 2</p>																																

3RD CHILD	4TH CHILD	5TH CHILD	6TH CHILD
<div> <div> <div></div> <div></div> </div> <div>66-67/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>14-15/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>31-32/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>48-49/</div> </div>
<div> <div> <div></div> <div></div> </div> <div>68-69/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>16-17/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>33-34/</div> </div>	<div> <div> <div></div> <div></div> </div> <div>50-51/</div> </div>
<div>YES . . . . . 1</div> <div>70/</div> <div>NO . . . . (GO TO Q.5) . 2</div>	<div>YES . . . . . 1</div> <div>18/</div> <div>NO . . . . (GO TO Q.5) . 2</div>	<div>YES . . . . . 1</div> <div>35/</div> <div>NO . . . . (GO TO Q.5) . 2</div>	<div>YES . . . . . 1</div> <div>52/</div> <div>NO . . . . (GO TO Q.5) . 2</div>
<div>YES NO</div> <div>Learning Disability . . . 1 2 71/</div> <div>Physical or Motor Impairment . . 1 2 72/</div> <div>Mental Impairment. . 1 2 73/</div>	<div>YES NO</div> <div>Learning Disability . . . 1 2 19/</div> <div>Physical or Motor Impairment . . 1 2 20/</div> <div>Mental Impairment. . 1 2 21/</div>	<div>YES NO</div> <div>Learning Disability . . . 1 2 36/</div> <div>Physical or Motor Impairment . . 1 2 37/</div> <div>Mental Impairment. . 1 2 38/</div>	<div>YES NO</div> <div>Learning Disability . . . 1 2 53/</div> <div>Physical or Motor Impairment . . 1 2 54/</div> <div>Mental Impairment. . 1 2 55/</div>
<div>BEGIN DECK 35</div> <div>YES . (GO TO Q.7) . . 1</div> <div>10/</div> <div>NO . . (ASK Q.6A) . . . 2</div>	<div>YES . (GO TO Q.7) . . 1</div> <div>27/</div> <div>NO . . (ASK Q.6A) . . . 2</div>	<div>YES . . (GO TO Q.7) . . 1</div> <div>44/</div> <div>NO . . . (ASK Q.6A) . . . 2</div>	<div>YES . (GO TO Q.7) . . 1</div> <div>61/</div> <div>NO . . (ASK Q.6A) . . . 2</div>
<div>YES . (Q.4 AND 5 FOR NEXT CHILD) . . 1</div> <div>11/</div> <div>NO . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . 2</div>	<div>YES . (Q.4 AND 5 FOR NEXT CHILD) . . 1</div> <div>28/</div> <div>NO . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . 2</div>	<div>YES . . (Q.4 AND 5 FOR NEXT CHILD) . 1</div> <div>45/</div> <div>NO . . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . 2</div>	<div>YES . (Q.4 AND 5 FOR NEXT CHILD) . . 1</div> <div>62/</div> <div>NO . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . 2</div>
<div></div> <div></div> <div>12/</div>	<div></div> <div></div> <div>29/</div>	<div></div> <div></div> <div>46/</div>	<div></div> <div></div> <div>63/</div>
<div>YES . (GO TO Q.9) . . 1</div> <div>13/</div> <div>NO . . (SKIP TO Q.11) . 2</div>	<div>YES . . (GO TO Q.9) . 1</div> <div>30/</div> <div>NO . . . (SKIP TO Q.11) 2</div>	<div>YES . . (GO TO Q.9) . . 1</div> <div>47/</div> <div>NO . . . (SKIP TO Q.11) 2</div>	<div>YES . (GO TO Q.9) . . 1</div> <div>64/</div> <div>NO . . (SKIP TO Q.11) . 2</div>

	1ST CHILD	2ND CHILD
CHILD'S NAME:		
CHILD'S ID#	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
MOTHER'S ID#	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
9. COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM	COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  65/R  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM	COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  71/R  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM
10. Did the doctor say that (CHILD) need (s/ed) any testing, medication, treatment, surgery, or special equipment because of the birth defect or impairment? By special equipment I mean a wheelchair, walker, artificial limb, body brace(s), or crutches.	66/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	72/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
11. Did (CHILD) ever receive any testing, medication, treatment, surgery or special equipment because of the birth defect or impairment?	67/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	73/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
12. At any time, did (CHILD'S) birth defect or impairment interfere in any way with (CHILD'S) physical or social development? For example, getting a job or making friends?	68/ YES... (GO TO Q.13) ..... 1 NO... (ASK Q.12A) ..... 2 DON'T KNOW ..... 8	74/ YES... (GO TO Q.13) ..... 1 NO... (ASK Q.12A) ..... 2 DON'T KNOW ..... 8
12A. INTERVIEWER: WAS THERE A "YES" CODED AT Q.10 OR Q.11?	69/ YES... (SKIP TO Q.13) ..... 1 NO... (ASK Q.12B) ..... 2	75/ YES... (SKIP TO Q.13) ..... 1 NO... (ASK Q.12B) ..... 2
12B. INTERVIEWER: IS THERE ANOTHER CHILD?	70/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO... (SKIP TO <del>BOX</del> ABOVE Q.22) ..... 2	76/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO... (SKIP TO <del>BOX</del> ABOVE Q.22) ..... 2

3RD CHILD	4TH CHILD	5TH CHILD	6TH CHILD
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM	COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM	COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM	COMPLETE HEALTH CARE PROVIDER FORM FOR EACH CANCER, DISABILITY AND DEFECT.  IF NECESSARY, COMPLETE A MEDICAL AUTHORIZATION FORM
78/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	14/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	20/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	26/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
79/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	15/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	21/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	27/ YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
BEGIN DECK 36 10/ YES....(GO TO Q.13) 1 NO.... (ASK Q.12A) . 2 DON'T KNOW ..... 8 11/ YES.... (SKIP TO Q.13)1 NO.... (ASK Q.12B) . 2 12/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO.... (SKIP TO <del>BOX</del> ABOVE Q.22) 2	16/ YES....(GO TO Q.13) . 1 NO.... (ASK Q.12A) .. 2 DON'T KNOW ..... 8 17/ YES.... (SKIP TO Q.13)1 NO.... (ASK Q.12B) .. 2 18/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO.... (SKIP TO <del>BOX</del> ABOVE Q.22) . 2	22/ YES....(GO TO Q.13) . 1 NO.... (ASK Q.12A) .. 2 DON'T KNOW ..... 8 23/ YES.... (SKIP TO Q.13)1 NO.... (ASK Q.12B) .. 2 24/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO.... (SKIP TO <del>BOX</del> ABOVE Q.22) . 2	28/ YES....(GO TO Q.13) . 1 NO.... (ASK Q.12A) .. 2 DON'T KNOW ..... 8 29/ YES.... (SKIP TO Q.13) 1 NO.... (ASK Q.12B) .. 2 30/ YES... (GO BACK TO Q.4 FOR NEXT CHILD) ..... 1 NO.... (SKIP TO <del>BOX</del> ABOVE Q.22) . 2



	1ST CHILD	2ND CHILD
<b>CHILD'S NAME:</b>		
<b>CHILD'S ID#</b>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
<b>MOTHER'S ID#</b>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
<b>13.</b> Did (CHILD'S) doctor say that any of the birth defect(s) or impairments (was/were) life-threatening if left untreated? By untreated I mean if (CHILD) did not receive surgery, medication, a special diet, or some other medical intervention.	<div style="text-align: right;">31/</div> YES..... (ASK Q.13A) ..... 1 NO..... (ASK Q.13A) ..... 2 DON'T KNOW..... (ASK Q.13A) ..... 8	<div style="text-align: right;">37/</div> YES..... (ASK Q.13A) ..... 1 NO..... (ASK Q.13A) ..... 2 DON'T KNOW..... (ASK Q.13A) ..... 8
<b>13A. INTERVIEWER: IS CHILD UNDER TWO YEARS OLD OR DID CHILD DIE BEFORE HE OR SHE WAS TWO YEARS OLD?</b>	<div style="text-align: right;">32/</div> YES..... <b>SKIP TO Q.21, PAGE F-12</b> ..... 1 NO ..... 2	<div style="text-align: right;">38/</div> YES..... <b>SKIP TO Q.21, PAGE F-12</b> ..... 1 NO ..... 2
<b>14.</b> Did (CHILD) ever need help with eating, dressing, bathing, or using the toilet because of a birth defect or impairment? Help includes someone actually helping rather than just standing by to assist if needed.	<div style="text-align: right;">33/</div> YES ..... 1 NO ..... 2	<div style="text-align: right;">39/</div> YES ..... 1 NO ..... 2
<b>15.</b> Because of a birth defect or impairment, did (CHILD) ever use or need any mechanical or need any mechanical or special aids such as a wheelchair, walker, body braces, artificial limbs, or crutches to carry out everyday activities?	<div style="text-align: right;">34/</div> YES ..... 1 NO ..... 2	<div style="text-align: right;">40/</div> YES ..... 1 NO ..... 2
<b>16.</b> Was (CHILD) ever unable to take part at all in ordinary play with other children because of a birth defect or impairment?	<div style="text-align: right;">35/</div> YES..... (SKIP TO Q.17) ..... 1 NO..... (ASK Q.16A) ..... 2	<div style="text-align: right;">41/</div> YES..... (SKIP TO Q.17) ..... 1 NO..... (ASK Q.16A) ..... 2
<b>16A.</b> Was (CHILD) ever limited in the kind or amount of play he/she could do because of his/her birth defect or impairment?	<div style="text-align: right;">36/</div> YES ..... 1 NO ..... 2	<div style="text-align: right;">42/</div> YES ..... 1 NO ..... 2

3RD CHILD	4TH CHILD	5TH CHILD	6TH CHILD
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
43/ YES... (ASK Q.13A) . 1 NO... (ASK Q.13A) . 2 DON'T KNOW.. (ASK Q.13A) . 8	49/ YES... (ASK Q.13A) . 1 NO... (ASK Q.13A) . 2 DON'T KNOW.. (ASK Q.13A) . 8	55/ YES... (ASK Q.13A) . 1 NO... (ASK Q.13A) . 2 DON'T KNOW.. (ASK Q.13A) . 8	61/ YES... (ASK Q.13A) . 1 NO... (ASK Q.13A) . 2 DON'T KNOW.. (ASK Q.13A) . 8
44/ YES. SKIP TO Q.21, PAGE F-12 . 1 NO . 2	50/ YES. SKIP TO Q.21, PAGE F-12 . 1 NO . 2	56/ YES. SKIP TO Q.21, PAGE F-12 . 1 NO . 2	62/ YES. SKIP TO Q.21, PAGE F-12 . 1 NO . 2
45/ YES . 1 NO . 2	51/ YES . 1 NO . 2	57/ YES . 1 NO . 2	63/ YES . 1 NO . 2
46/ YES . 1 NO . 2	52/ YES . 1 NO . 2	58/ YES . 1 NO . 2	64/ YES . 1 NO . 2
47/ YES... (SKIP TO Q.17) 1 NO... (ASK Q.16A) . 2	53/ YES... (SKIP TO Q.17) 1 NO... (ASK Q.16A) . 2	59/ YES... (SKIP TO Q.17) 1 NO... (ASK Q.16A) . 2	65/ YES... (SKIP TO Q.17) . 1 NO... (ASK Q.16A) . 2
48/ YES . 1 NO . 2	54/ YES . 1 NO . 2	60/ YES . 1 NO . 2	66/ YES . 1 NO . 2

	1ST CHILD	2ND CHILD
<b>CHILD'S NAME:</b>		
<b>CHILD'S ID#</b>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
<b>MOTHER'S ID#</b>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
17. Did (CHILD'S) birth defect or impairment ever keep (him/her) from going to school?	67/ YES. .... (SKIP TO Q.18) ..... 1 NO. .... (ASK Q.17A) ..... 2	75/ YES. .... (SKIP TO Q.18) ..... 1 NO. .... (ASK Q.17A) ..... 2
17A. Did (CHILD) ever have to go to a certain type of school, or be in a special class because of (his/her) birth defect or impairment?	68/ YES. .... (SKIP TO Q.18) ..... 1 NO. .... (ASK Q.17B) ..... 2	76/ YES. .... (SKIP TO Q.18) ..... 1 NO. .... (ASK Q.17B) ..... 2
17B. Was (CHILD) ever limited in school attendance or in being able to learn because of (his/her) birth defect or impairment?	69/ YES ..... 1 NO ..... 2	77/ YES ..... 1 NO ..... 2
18. Because of (his/her) birth defect or impairment did (CHILD) ever need a lot more help than other children (his/her) age in going outside, getting to school, going to the store, and other everyday activities like that?	70/ YES ..... 1 NO ..... 2	78/ YES ..... 1 NO ..... 2
19. Because of a birth defect or impairment, did (CHILD) ever need the help of another person for everyday activities such as taking care of the house or yard, doing the laundry, or preparing meals?	71/ YES ..... 1 NO ..... 2	79/ YES ..... 1 NO ..... 2  BEGIN DECK 37
20. Will/Would (CHILD'S) impairment (keep/have kept) (him/her) from working on a job for pay?	72/ YES. .... (SKIP TO Q.21) ..... 1 NO. .... (ASK Q.20A) ..... 2	10/ YES. .... (SKIP TO Q.21) ..... 1 NO. .... (ASK Q.20A) ..... 2
20A. Will/Would (CHILD) (be/have been) limited in the kind of work (he/she) could (do/have done) because of (his/her) birth defect?	73/ YES. .... (SKIP TO Q.21) ..... 1 NO. .... (ASK Q.20B) ..... 2	11/ YES. .... (SKIP TO Q.21) ..... 1 NO. .... (ASK Q.20B) ..... 2
20B. Will/Would (CHILD) (be/have been) limited in the amount of work (he/she) could (do/have done) because of (his/her) birth defect?	74/ YES ..... 1 NO ..... 2	12/ YES ..... 1 NO ..... 2

3RD CHILD	4TH CHILD	5TH CHILD	6TH CHILD
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<p>13/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17A) .. 2</p> <p>14/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17B) .. 2</p> <p>15/ YES ..... 1</p> <p>NO ..... 2</p>	<p>21/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17A) .. 2</p> <p>22/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17B) .. 2</p> <p>23/ YES ..... 1</p> <p>NO ..... 2</p>	<p>29/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17A) .. 2</p> <p>30/ YES... (SKIP TO Q.18) 1</p> <p>NO... (ASK Q.17B) .. 2</p> <p>31/ YES ..... 1</p> <p>NO ..... 2</p>	<p>37/ YES... (SKIP TO Q.18) . 1</p> <p>NO... (ASK Q.17A) ... 2</p> <p>38/ YES... (SKIP TO Q.18) . 1</p> <p>NO... (ASK Q.17B) ... 2</p> <p>39/ YES ..... 1</p> <p>NO ..... 2</p>
<p>16/ YES ..... 1</p> <p>NO ..... 2</p>	<p>24/ YES ..... 1</p> <p>NO ..... 2</p>	<p>32/ YES ..... 1</p> <p>NO ..... 2</p>	<p>40/ YES ..... 1</p> <p>NO ..... 2</p>
<p>17/ YES ..... 1</p> <p>NO ..... 2</p>	<p>25/ YES ..... 1</p> <p>NO ..... 2</p>	<p>33/ YES ..... 1</p> <p>NO ..... 2</p>	<p>41/ YES ..... 1</p> <p>NO ..... 2</p>
<p>18/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20A) . 2</p> <p>19/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20B) .. 2</p> <p>20/ YES ..... 1</p> <p>NO ..... 2</p>	<p>26/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20A) . 2</p> <p>27/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20B) .. 2</p> <p>28/ YES ..... 1</p> <p>NO ..... 2</p>	<p>34/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20A) . 2</p> <p>35/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20B) .. 2</p> <p>36/ YES ..... 1</p> <p>NO ..... 2</p>	<p>42/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20A) .. 2</p> <p>43/ YES... (SKIP TO Q.21) 1</p> <p>NO... (ASK Q.20B) .. 2</p> <p>44/ YES ..... 1</p> <p>NO ..... 2</p>

	1ST CHILD	2ND CHILD
CHILD'S NAME:		
CHILD'S ID#	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
MOTHER'S ID#	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
21. INTERVIEWER: DOES RESPONDENT HAVE ANOTHER CHILD WITH CONDITIONS?	<div style="text-align: right;">45/</div> YES. . (GO BACK TO Q.4 FOR NEXT CHILD) 1  NO. .... (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) ... 2	<div style="text-align: right;">46/</div> YES. . (GO BACK TO Q.4 FOR NEXT CHILD) 1  NO. .... (SKIP TO BOX ABOVE Q.22) ... 2

22. Did you ever have a birth defect?

YES ..... (ASK Q.22A) ..... 1 47/

NO ..... 2

22A. What kind of birth defect was it? Any others?

---



---



---

48/

23. Do you have any biological brothers or sisters? Include any brothers or sisters who may have died before age of 1.

YES ..... (ASK Q.24, PAGE F-14) ..... 1 49/

NO ..... (SKIP TO Q.25, PAGE F-14) ..... 2

DON'T KNOW ... (SKIP TO Q.25, PAGE F-14) ..... 8

3RD CHILD	4TH CHILD	5TH CHILD	6TH CHILD
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<p>50/ YES. . (GO BACK TO Q.4 FOR NEXT CHILD) 1</p> <p>NO. . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . . . 2</p>	<p>51/ YES. . (GO BACK TO Q.4 FOR NEXT CHILD) 1</p> <p>NO. . . . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . 2</p>	<p>52/ YES. . (GO BACK TO Q.4 FOR NEXT CHILD) 1</p> <p>NO. . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . . 2</p>	<p>53/ YES. . (NEW QUEX) . . 1</p> <p>NO. . . (SKIP TO <del>BOX</del> <del>ABOVE</del> Q.22) . . 2</p>

24. Did any of your biological brothers or sisters ever have a birth defect?

YES ..... (ASK Q.24A) ..... 1  
 NO ..... (SKIP TO Q.25) ..... 2  
 DON'T KNOW ... (SKIP TO Q.25) ..... 8

54/

24A. Who had a defect, your brothers, sisters, or both?

BROTHERS ..... 1  
 SISTERS ..... 2  
 BOTH ..... 3

55/

FOR EACH SIBLING WITH A BIRTH DEFECT, ASK: What kind of birth defect did your (brother/sister) have? RECORD DEFECT. Was this sibling a half (brother/sister) or a full (brother/sister)? RECORD BELOW.

SIBLING 1	56/	SIBLING 2	58/
DEFECT: _____		DEFECT: _____	
_____	57/	_____	59/
HALF (BROTHER/SISTER) ..... 1		HALF (BROTHER/SISTER) ..... 1	
FULL (BROTHER/SISTER) ..... 2		FULL (BROTHER/SISTER) ..... 2	
SIBLING 3	60/	SIBLING 4	62/
DEFECT: _____		DEFECT: _____	
_____	61/	_____	63/
HALF (BROTHER/SISTER) ..... 1		HALF (BROTHER/SISTER) ..... 1	
FULL (BROTHER/SISTER) ..... 2		FULL (BROTHER/SISTER) ..... 2	

25. Now I would like to ask you some questions about your biological parents. Did either your biological mother or biological father ever have a birth defect?

YES ..... (GO TO Q.26) ..... 1  
 NO ..... (SKIP TO Q.28, PAGE F-15) ..... 2  
 DON'T KNOW ... (SKIP TO Q.28, PAGE F-15) ..... 8

64/

26. Which parent had a birth defect?

MOTHER ONLY ..... 1  
 FATHER ONLY ..... 2  
 BOTH PARENTS ..... 3

65/

27. What kind of birth defect did your (PARENT) have?

Mother: \_\_\_\_\_ 66/      Father: \_\_\_\_\_  
 \_\_\_\_\_

67/

I.S.R.B. ON PAGE 5.

28. Now there are some questions about death in your family. Has anyone near to you died in the last 12 months?

YES ..... 1 68/

NO ..... (SKIP TO SECTION G) ..... 2

28A. SHOW PARTICIPANT HAND CARD I. What was the person's relationship to you? Please choose as many as apply from the card. CODE ALL THAT APPLY.

A. CHILD ..... 01 69-70/

B. PARENT ..... 02 71-72/

C. SPOUSE/PARTNER ..... 03 73-74/

D. BROTHER OR SISTER ..... 04 75-76/

E. OTHER NEAR RELATIVE OF YOU OR YOUR SPOUSE/PARTNER 05 77-78/

F. FRIEND ..... 06 79-80/

G. OTHER (SPECIFY) \_\_\_\_\_ BEGIN DECK 38

\_\_\_\_\_ 07 10-11/

28B. What (was the date/were the dates) of the death(s)? What month and year?  
(ENTER DATES OF DEATH IN SAME ORDER AS CIRCLED CODES.)

ENTER MONTH AND YEAR [ ] [ ] - [ ] [ ] 12-15/

ENTER MONTH AND YEAR [ ] [ ] - [ ] [ ] 16-19/

ENTER MONTH AND YEAR [ ] [ ] - [ ] [ ] 20-23/



**SECTION G: HEALTH****FOR THIS SECTION YOU WILL NEED:**

- HAND CARDS J - L
- HAND CARD N - Q
- SELF ADMINISTERED FORM 2
- INTERVAL SUPPLEMENTAL RECORDING BOOK (I.S.R.B.)

1. Now let's talk about health. Compared to other people your age, would you say that your health is ...  
(READ CHOICES)?

Excellent .....	1	24/
Good .....	2	
Fair .....	3	
Poor .....	4	

2. Since (DATE OF LAST INTERVIEW) have you had acne on your face, chest or back?

YES .....	1	25/
NO ..... (SKIP TO Q.9, PAGE G-5) .....	2	

3. During what year, between (DATE OF LAST INTERVIEW) and now, did you last have acne on your face, chest or back?

RECORD YEAR: 19 <input type="text"/> <input type="text"/> <input type="text"/>	26-27/
--	--------

4. Think about the [first/next] time you had acne on your face, chest or back between (DATE OF LAST INTERVIEW) and now. When did it start and until when did it last? (PROBE FOR ALL PERIODS OF TIME.)

FIRST

SECOND

THIRD

\_\_\_\_ - \_\_\_\_ 28-31/  
MONTH YEAR

\_\_\_\_ - \_\_\_\_ 36-39/  
MONTH YEAR

\_\_\_\_ - \_\_\_\_ 44-47/  
MONTH YEAR

TO

TO

TO

\_\_\_\_ - \_\_\_\_ 32-35/  
MONTH YEAR

\_\_\_\_ - \_\_\_\_ 40-43/  
MONTH YEAR

\_\_\_\_ - \_\_\_\_ 48-51/  
MONTH YEAR

- 4A. ASK Q.4A FOR EACH TIME IN Q.4. SHOW RESPONDENT HAND CARD J. Where was the acne located [the (first/next) time]?  
CIRCLE "YES" OR "NO."

FIRST TIME  
YES NO

SECOND TIME  
YES NO

THIRD TIME  
YES NO

TEMPLES	1 . 2	52/	1 . . 2	61/	1 . . 2	70/
EYES OR EYELIDS	1 . 2	53/	1 . . 2	62/	1 . . 2	71/
EARS	1 . 2	54/	1 . . 2	63/	1 . . 2	72/
CHEEKS	1 . 2	55/	1 . . 2	64/	1 . 2	73/
NOSE	1 . . 2	56/	1 . . 2	65/	1 . 2	74/
FOREHEAD	1 . . 2	57/	1 . . 2	66/	1 . 2	75/
JAW, CHIN						
OTHER	1 . . 2	58/	1 . . 2	67/	1 . 2	76/
CHEST	1 . . 2	59/	1 . . 2	68/	1 . 2	77/
BACK	1 . . 2	60/	1 . . 2	69/	1 . 2	78/

5. IF TEMPLES, EYES, EYELIDS, OR EARS NOT CIRCLED IN Q.4A, SKIP TO Q.9, PAGE G-5.  
OTHERWISE ASK: Between (DATE OF LAST INTERVIEW) and now, did you ever consult a doctor or medical facility about the acne on your (temples/eyes or eyelids/ears)?

YES ..... 1 79/

NO ..... (SKIP TO Q.9, PAGE G-5) ..... 2

6. What month and year did you first consult a doctor about the acne on your (temples/eyes or eyelids/ears)?

    | | | - | | |  
MONTH      YEAR

BEGIN DECK 39  
10-13/

- 6A. What is the full name of the doctor who made the diagnosis or the name of the medical facility where the diagnosis was made?

COMPLETE MEDICAL AUTHORIZATION FORM, IF NECESSARY.

\_\_\_\_\_  
PHYSICIAN'S LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

INSTRUCTIONS FOR MEDICAL AUTHORIZATION FORMS:

YOU MUST COMPLETE AN AUTHORIZATION FORM FOR EACH PHYSICIAN OR FACILITY NAMED BY THE PARTICIPANT.

IF THE PARTICIPANT SEES THE SAME PROVIDER (PHYSICIAN OR FACILITY) FOR SEVERAL CONDITIONS, YOU COMPLETE ONE AUTHORIZATION FORM FOR THE SAME PROVIDER FORM.

LIST EACH INDIVIDUAL CONDITION ON THE SAME PROVIDER FORM.

- 6B. What is the address of that (doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

14/

\_\_\_\_\_  
CITY

\_\_\_\_\_  
(STATE)

7. What month and year did you last consult a doctor about the acne on your (temples/eyes or eyelids/ears)?

\_\_\_\_ - \_\_\_\_  
MONTH YEAR

15-18/

- 8A. What was the name of the doctor or medical facility you consulted at that time?  
IF THE NAME OF THE PROVIDER IS THE SAME AS IN Q.6A,  
WRITE: "SAME PROVIDER AS IN Q.6A."

\_\_\_\_\_  
PHYSICIANS LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

- 8B. What is the address of that (doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

\_\_\_\_\_  
(STATE)

9. WAS R INTERVIEWED IN 1985/1986 OR 1987/1988? SEE INFORMATION SHEET.

YES ..... (SKIP TO Q.11, PAGE G-6) ..... 1

NO ..... 2

10. SHOW RESPONDENT HAND CARD K. What is your blood type?

A ..... 1

19/

B ..... 2

O ..... 3

AB ..... 4

DON'T KNOW ..... 8

- 10A. Is that positive or negative?

POSITIVE ..... 1

20/

NEGATIVE ..... 2

11. ASK ALL RESPONDENTS. SHOW RESPONDENT HAND CARD L. During the last year, how often, on average, would you say you use aspirin?

More than 4 aspirin a day .....	1	21/
4 aspirin a day (2 doses a day) .....	2	
2 aspirin a day (1 dose a day) .....	3	
6-8 aspirin a week (1 dose, 3-4 days/week) .....	4	
4 aspirin a week or less .....	5	
NONE .....	6	

12. In the summer, once you have already been in the sun several times, what reaction will your skin have the next time you go out in the sun for two or more hours on a bright day? Would you say you get . . .

A painful burn? .....	1	22/
A burn? .....	2	
Some redness only? .....	3	
Or no reaction? .....	4	

13. SHOW RESPONDENT HAND CARD N. After repeated sun exposures, for example, a two week vacation outdoors, will your skin become . . .

Only freckled or no suntan at all? .....	1	23/
Only mildly tanned due to a tendency to peel? .....	2	
Moderately tanned? .....	3	
Very brown and deeply tanned? .....	4	

WAS R INTERVIEWED IN 1985/1986 OR 1987/1988? SEE INFORMATION SHEET.

YES ..... (SKIP TO Q.15, BELOW) ..... 1

NO ..... 2

14. **HAND R SELF-ADMINISTERED FORM 2.** We would like you to tell us all the places you've lived since you were born. Please list all the places you've lived for more than 12 months starting with the first place since birth. Please take your time. It will probably take you 10 minutes or so to fill out this form. Please begin.

15. Since (DATE OF LAST INTERVIEW)/(During any period in your life), did a doctor (ever) tell you that you had a peptic or stomach ulcer?

Yes ..... (GO TO Q.16) ..... 1 24/

No ..... (SKIP TO Q.30, PAGE G-11) ..... 2

16. During what month and year did a doctor first tell you that you had a peptic or stomach ulcer?

    | | - | |  
MONTH YEAR

25-28/

17. What is the full name of the doctor who made the diagnosis or the name of the medical facility where the diagnosis was made? COMPLETE MEDICAL AUTHORIZATION FORM.

\_\_\_\_\_  
PHYSICIAN'S LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

A. What is the address of that (doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

    | |  
          (SSTATE)

B-97

18. Do you have a peptic or stomach ulcer now?

YES ..... 1 29/

NO ..... 2

19. What month and year did you last consult a doctor for your peptic or stomach ulcer?

\_\_\_\_ - \_\_\_\_  
MONTH YEAR

30-33/

A. Was this the same doctor that had originally diagnosed the stomach ulcer for the first time?

YES ..... (SKIP TO Q.20, BELOW) ..... 1

NO ..... 2

B. What is the full name of the doctor or the name of the medical facility you last consulted for your peptic or stomach ulcer? COMPLETE MEDICAL AUTHORIZATION FORM.

\_\_\_\_\_  
PHYSICIANS LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

C. What is the address of that doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

\_\_\_\_\_  
(STATE)

20. Since (DATE OF LAST INTERVIEW) have you/(Have you ever during any period in your life) had a bleeding ulcer?

YES ..... 1 34/

NO ..... 2

.. SKIP TO Q-27, PAGE G-11)..



21. During what month and year did a doctor first tell you that you had a bleeding ulcer?

-    
MONTH YEAR

35-38/

22. What is the full name of the doctor who made the diagnosis or the medical facility where the diagnosis was made?

IF NAME OF THE PROVIDER IS THE SAME AS IN Q.17,  
WRITE: "SAME PROVIDER AS IN Q.17."

\_\_\_\_\_  
PHYSICIAN'S LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

23. What is the address of that (doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

(STATE)

24. What month and year did you last consult a doctor for your bleeding ulcer?

-    
MONTH YEAR

39-42/

- A. Was this the same doctor that had originally diagnosed the stomach ulcer for the first time?

YES ..... (SKIP TO Q.25, NEXT PAGE) ..... 1

NO ..... 2

- B. What is the full name of the doctor or the name of the medical facility you last consulted for you bleeding ulcer?

COMPLETE MEDICAL AUTHORIZATION FORM.

\_\_\_\_\_  
PHYSICIAN'S LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

- C. What is the address of that doctor/medical facility)?

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY (STATE)

25. What is the treatment you are currently taking for the bleeding ulcer?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

26. During what month(s) and year(s) did you have a bleeding ulcer? Any other times?

FROM

\_\_\_\_ - \_\_\_\_ 43-46/  
MONTH YEAR

TO

\_\_\_\_ - \_\_\_\_ 47-50/  
MONTH YEAR

FROM

\_\_\_\_ - \_\_\_\_ 51-54/  
MONTH YEAR

TO

\_\_\_\_ - \_\_\_\_ 55-58/  
MONTH YEAR

FROM

\_\_\_\_ - \_\_\_\_ 59-62/  
MONTH YEAR

TO

\_\_\_\_ - \_\_\_\_ 63-66/  
MONTH YEAR

B-100

27. FOR PARTICIPANTS INTERVIEWED IN 1985/1986 OR 1987/1988 READ "SINCE DATE OF LAST INTERVIEW. Since (DATE OF LAST INTERVIEW) have you been/(Were you ever during any period in your life) hospitalized for your peptic or stomach ulcer?

YES ..... 1 67/  
NO ..... 2

28. Since (DATE OF LAST INTERVIEW) did you have/(Have you ever during any period in your life had) surgery for your peptic or stomach ulcer?

YES ..... 1 68/  
NO ..... 2

29. Are you currently taking any prescribed medicines for your peptic or stomach ulcer?

YES ..... 1 69/  
NO ..... (SKIP TO Q.30, BELOW) ..... 2

A. What are the names of the medicines you are taking?  
(PROBE: WHAT OTHERS?)

1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_

30. SHOW RESPONDENT HAND CARD O. Please indicate which of the following members of your biological family have ever had a peptic or stomach ulcer?

1. Mother .....	01	70-71/
2. Father .....	02	72-73/
3. Full Brother .....	03	74-75/
4. Half Brother .....	04	76-77/
5. Full Sister .....	05	78-79/
BEGIN DECK 40		
6. Half Sister .....	06	10-11/
7. NONE .....	07	12-13/
8. DON'T KNOW .....	98	14-15/

31. Do you have or have you recently had sharp upper stomach pain?

YES ..... 1 16/  
NO ..... (SKIP TO Q.34, BELOW) ..... 2

32. Was this pain relieved by food, milk, or antacids?

YES ..... 1 17/  
NO ..... 2

33. Has this stomach pain awakened you from sleep?

YES ..... 1 18/  
NO ..... 2

34. Have you vomited blood recently?

YES ..... 1 19/  
NO ..... 2

35. Have you recently experienced dark tar colored stools or bowel movements?

YES ..... 1 20/  
NO ..... 2

THIS PAGE INTENTIONALLY BLANK

B-103

May 15, 1992

19:06 pm

Field Version 1.1

Now I would like to ask you some questions that deal only with the period of time between (DATE OF LAST INTERVIEW) and now. (IF NEW PARTICIPANT OR ONLY THE BASELINE COMPLETED: REFERENCE DATE IS: Between January 1, 1983 and now.)

INTERVIEWER: ASK A THROUGH G FOR EACH CONDITION CODED YES.

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did a doctor first tell you that you had</u> (CONDITION)?	What is the full name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? REVIEW MEDICAL AUTHORIZATION FORMS. IF FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM NOW.
36. Diabetes?	YES ..... 1 <div style="border: 1px solid black; padding: 2px; display: inline-block;">(SKIP TO Q.1525 in I.S.R.B. on page 7)</div> NO ..... 2 21/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border-bottom: 1px solid black; width: 15px;"></div> <div style="border-bottom: 1px solid black; width: 15px;"></div> <div style="border-bottom: 1px solid black; width: 15px;"></div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> <div style="text-align: center;">22-25/</div> </div>	PHYSICIAN'S LAST NAME <span style="float: right;">26/</span> FIRST NAME OR FACILITY NAME STREET ADDRESS CITY <span style="float: right;">STATE</span>
37. Thyroid problems? (SPECIFY) _____ _____ _____ 28/	YES ..... 1 NO. (SKIP TO Q.38, PAGE G-16) ..... 2 27/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border-bottom: 1px solid black; width: 15px;"></div> <div style="border-bottom: 1px solid black; width: 15px;"></div> <div style="border-bottom: 1px solid black; width: 15px;"></div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> <div style="text-align: center;">29-32/</div> </div>	PHYSICIAN'S LAST NAME <span style="float: right;">33/</span> FIRST NAME OR FACILITY NAME STREET ADDRESS CITY <span style="float: right;">STATE</span>

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 34/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 35/	1) _____ 36-38/ 2) _____ 39-41/ 3) _____ 42-44/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-around; font-size: small;"> <span>MONTH</span> <span>YEAR</span> </div> </div>	PHYSICIAN'S LAST NAME 49/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY _____ STATE _____ INTERVIEWER: BEFORE ASKING ABOUT THYROID PROBLEMS, SKIP TO Q.IS25 IN I.S.R.B. PAGE 7.
YES ..... 1 NO ..... 2 50/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 51/	1) _____ 52-54/ 2) _____ 55-57/ 3) _____ 58-60/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-around; font-size: small;"> <span>MONTH</span> <span>YEAR</span> </div> </div>	PHYSICIAN'S LAST NAME 65/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY _____ STATE _____

B-105





1992 Air Force Health Study (#4563)  
Health Interval Questionnaire

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 10/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 11/	1) _____ 12-14/ 2) _____ 15-17/ 3) _____ 18-20/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>MONTH</span> <span>YEAR</span> </div> </div>	PHYSICIAN'S LAST NAME 25/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  <div style="display: flex; justify-content: space-between;"> <span>CITY</span> <span>STATE</span> </div>
YES ..... 1 NO ..... 2 26/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 27/	1) _____ 28-30/ 2) _____ 31-33/ 3) _____ 34-36/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>MONTH</span> <span>YEAR</span> </div> </div>	PHYSICIAN'S LAST NAME 41/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  <div style="display: flex; justify-content: space-between;"> <span>CITY</span> <span>STATE</span> </div>

B-107

May 15, 1992

18:00 pm

Field Version 1.1

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had. . . ?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did</u> a <u>doctor first tell</u> you that you had (CONDITION)?	What is the full name and address of the doctor who first made the <u>diagnosis</u> or the <u>medical facility where the diagnosis was first made?</u> IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
40. An enlarged liver?	YES ..... 1  NO. . (SKIP TO Q.41 BELOW) ... 2 42/	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> <div> MONTH YEAR 43-46/ </div>	<div> <div>PHYSICIAN'S LAST NAME</div> <div>47/</div> </div> <div> <div>FIRST NAME</div> <div>OR</div> </div> <div> <div>FACILITY NAME</div> </div> <div> <div>STREET ADDRESS</div> </div> <div> <div>CITY</div> <div>STATE</div> </div>
41. Jaundice?  (SPECIFY) _____ _____ _____	YES ..... 1  NO. . (SKIP TO Q.42 PAGE G-20) ..... 2 48/	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> <div> MONTH YEAR 49-52/ </div>	<div> <div>PHYSICIAN'S LAST NAME</div> <div>53/</div> </div> <div> <div>FIRST NAME</div> <div>OR</div> </div> <div> <div>FACILITY NAME</div> </div> <div> <div>STREET ADDRESS</div> </div> <div> <div>CITY</div> <div>STATE</div> </div>

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 54/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) .... 2 55/	1) _____ 56-58/ 2) _____ 59-61/ 3) _____ 62-64/	<div style="text-align: center;">                                  MONTH YEAR                          65-68/           </div> BEGIN DECK 42	PHYSICIAN'S LAST NAME 69/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  CITY                      STATE
YES ..... 1 NO ..... 2 70/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) .... 2 71/	1) _____ 72-74/ 2) _____ 75-77/ 3) _____ 78-80/	<div style="text-align: center;">                                  MONTH YEAR                          10-13/           </div>	PHYSICIAN'S LAST NAME 14/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  CITY                      STATE

B-109

May 15, 1992

18:07 pm

Field Version 1.1

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did a doctor first tell you that you had</u> (CONDITION)?	What is the full name and address of the doctor who first made the <u>diagnosis</u> or the <u>medical facility</u> where the <u>diagnosis was first made</u> ? IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
42. Hepatitis?	YES ..... 1 NO. (SKIP TO Q.43 BELOW) ... 2 15/	<div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div> MONTH YEAR 16-19/ </div>	<div>PHYSICIAN'S LAST NAME</div> <div>20/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div>CITY</div> <div>STATE</div> </div>
43. Cirrhosis of the liver?  ("SIR-O-SIS")	YES ..... 1 NO. (SKIP TO Q.44, PAGE G-22) ..... 2 21/	<div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div> MONTH YEAR 22-25/ </div>	<div>PHYSICIAN'S LAST NAME</div> <div>26/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div>CITY</div> <div>STATE</div> </div>

B-110

May 15, 1992

18:08 pm

Field Version 1.1

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 27/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 28/	1) _____ 29-31/ 2) _____ 32-34/ 3) _____ 35-37/	[ ] [ ] - [ ] [ ] MONTH YEAR 38-41/	_____ PHYSICIAN'S LAST NAME                      42/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY                      STATE
YES ..... 1 NO ..... 2 43/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 44/	1) _____ 45-47/ 2) _____ 48-50/ 3) _____ 51-53/	[ ] [ ] - [ ] [ ] MONTH YEAR 54-57/	_____ PHYSICIAN'S LAST NAME                      58/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY                      STATE

B-111

May 15, 1992

18:08 pm

Field Version 1.1

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did a doctor first tell you that you had</u> (CONDITION)?	What is the full name and address of the doctor <u>who first made the diagnosis or the medical facility where the diagnosis was first made?</u> IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
44. Intestinal parasites?	YES ..... 1 NO. . (SKIP TO Q.45 BELOW) ... 2 59/	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>MONTH YEAR</div> <div>60-63/</div> </div>	<div>PHYSICIAN'S LAST NAME</div> <div>64/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div>CITY</div> <div>STATE</div>
45. Gall bladder problems?	YES ..... 1 NO. . (SKIP TO Q.46, PAGE G-24) ..... 2 65/	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>MONTH YEAR</div> <div>66-69/</div> </div>	<div>PHYSICIAN'S LAST NAME</div> <div>70/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div>CITY</div> <div>STATE</div>

B-112

May 15, 1992

18:08 pm

Field Version 1.1

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 71/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 72/	1) _____ 73-75/ 2) _____ 76-78/ BEGIN DECK 43 3) _____ 10-12/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-around;"> MONTH YEAR </div> 13-16/ </div>	PHYSICIAN'S LAST NAME 17/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY                      STATE
YES ..... 1 NO ..... 2 18/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 19/	1) _____ 20-22/ 2) _____ 23-25/ 3) _____ 26-28/	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-around;"> MONTH YEAR </div> 29-32/ </div>	PHYSICIAN'S LAST NAME 33/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY                      STATE

B-113

May 15, 1992

18:09 pm

Field Version 1.1

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did</u> a doctor first tell you that you had (CONDITION)?	What is the full name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
46. Any other liver condition? (SPECIFY) _____ _____ _____ 35/	YES ..... 1 NO. (SKIP TO Q.47 BELOW) ... 2 34/	____-____ MONTH YEAR 36-39/	PHYSICIAN'S LAST NAME 40/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY STATE
47. Pneumonia?	YES ..... 1 NO. (SKIP TO Q.48 PAGE G-26) ..... 2 41/	____-____ MONTH YEAR 42-45/	PHYSICIAN'S LAST NAME 46/ _____ FIRST NAME OR _____ FACILITY NAME _____ STREET ADDRESS _____ CITY STATE

B-114

May 15, 1992

16:10 pm

Field Version 1.1



C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 47/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 48/	1) _____ 49-51/ 2) _____ 52-54/ 3) _____ 55-57/	<div style="text-align: center;">                   -                    MONTH YEAR                                  58-61/           </div>	PHYSICIAN'S LAST NAME 62/ FIRST NAME OR FACILITY NAME STREET ADDRESS CITY _____ STATE _____
YES ..... 1 NO ..... 2 63/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 64/	1) _____ 65-67/ 2) _____ 68-70/ 3) _____ 71-73/	<div style="text-align: center;">                   -                    MONTH YEAR                                  74-77/           </div>	PHYSICIAN'S LAST NAME 78/ FIRST NAME OR FACILITY NAME STREET ADDRESS CITY _____ STATE _____

B-115

May 15, 1992

16:10 pm

Field Version 1.1

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did a doctor first tell you that you had</u> (CONDITION)?	What is the full name and address of the doctor <u>who first made the diagnosis or the medical facility where the diagnosis was first made?</u> IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
48. A respiratory condition other than pneumonia?  (SPECIFY) _____  _____ 11/	YES ..... 1  NO. (SKIP TO Q.49 BELOW) ... 2 10/	_____ _____ _____ _____  MONTH YEAR 12-15/	_____ PHYSICIAN'S LAST NAME 16/  _____ FIRST NAME  OR  _____ FACILITY NAME  _____ STREET ADDRESS  _____ _____ _____  CITY STATE
49. Any other major condition?  (SPECIFY) _____  _____ 18/	YES ..... 1  NO. (SKIP TO Q.50, PAGE G-28) ..... 2 17/	_____ _____ _____ _____  MONTH YEAR 19-22/	_____ PHYSICIAN'S LAST NAME 23/  _____ FIRST NAME  OR  _____ FACILITY NAME  _____ STREET ADDRESS  _____ _____ _____  CITY STATE

B-116

May 15, 1992

16:10 pm

Field Version 1.1

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 24/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 25/	1) _____ 26-28/ 2) _____ 29-31/ 3) _____ 32-34/	<div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div> <div>MONTH</div> <div>YEAR</div> </div> <div>35-38/</div>	<div>PHYSICIAN'S LAST NAME</div> <div>39/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div>CITY</div> <div>STATE</div> </div>
YES ..... 1 NO ..... 2 40/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 41/	1) _____ 42-44/ 2) _____ 45-47/ 3) _____ 48-50/	<div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div> <div>MONTH</div> <div>YEAR</div> </div> <div>51-54/</div>	<div>PHYSICIAN'S LAST NAME</div> <div>55/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div>CITY</div> <div>STATE</div> </div>

		A	B
		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did a doctor first tell you that you had a condition which needed treatment?</u>	What is the full name and address of the doctor who first made the <u>diagnosis</u> or the medical facility <u>where the diagnosis was first made?</u> IF AUTHORIZATION FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM.
50. Since (DATE OF LAST INTERVIEW), have you been treated for a mental or emotional disorder whether you were hospitalized or treated as an outpatient. (SPECIFY) _____ _____ _____ 57/	YES ..... 1  (SKIP TO Q. IS 50 in I.S.R.B. Page 12) NO ..... 2 56/	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> <div> <div>MONTH</div> <div>YEAR</div> </div> <div>58-61/</div>	<div>PHYSICIAN'S LAST NAME</div> <div>62/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div>CITY</div> <div>STATE</div>

B-118

C	D	E	F	G
Do you have emotional disorder now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult a doctor for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 63/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) ..... 2 64/	1) _____ _____ 2) _____ _____ 3) _____ _____	<div style="text-align: center;">                   -                    MONTH YEAR              65-68/           </div>	_____ PHYSICIAN'S LAST NAME  _____ FIRST NAME OR _____ FACILITY NAME  _____ STREET ADDRESS  _____       CITY                   STATE

BEFORE ASKING Q.51, SKIP TO Q.1550 in I.S.R.B. on PAGE 12.

B-119

May 15, 1992

18:06 pm

Field Version 1.1

51. At any time since (DATE OF LAST INTERVIEW) has a doctor told you that you had cancer?

YES ..... 1 69/  
NO ..... (SKIP TO Q.55, PAGE G-<sup>37</sup>~~39~~) ..... 2

52. Did the doctor tell you that this was a skin cancer or a systemic (body) cancer?

SKIN CANCER ONLY ..... 1 70/  
SYSTEMIC CANCER ONLY (SKIP TO Q.54, PAGE G-34) .. 2  
BOTH SKIN AND SYSTEMIC CANCER ..... 3

**SKIN CANCER ONLY**

53. SHOW RESPONDENT HAND CARD J. Please look at this chart and tell me where each of your skin cancers (is/was) located.

INDICATE THE ANATOMICAL CODE FOR EACH SITE BEING REPORTED.

**SITE NUMBER**

1	2	3
<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> 71-72/	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> 73-74/	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> 75-76/

**SITE CODE**

- |  |   |
|--|---|
| CODES: (01) Scalp or Forehead<br>(02) Eye Lid<br>(03) Ear<br>(04) Nose<br>(05) Head or Neck, Not<br>Otherwise Specified<br>(06) Cheek, chin or jaw<br>(07) Neck or Supraclavicular<br>(08) Vermilion<br>(09) Trunk, Front<br>(10) Trunk, Back<br>(11) Trunk, Not Otherwise<br>Specified<br>(12) Arm<br>(13) Hand | (14) Arm or Hand, Not Otherwise<br>Specified<br>(15) Genitals<br>(16) Leg<br>(17) Foot<br>(18) Leg or Foot, Not Otherwise<br>Specified<br>(19) Skin, Not Otherwise Specified<br>(20) Upperlip, Not Otherwise<br>Specified<br>(21) Lowerlip, Not Otherwise<br>Specified<br>(22) Lip, Not Otherwise Specified |
|--|---|

B-120

May 15, 1992

16:10 pm

Field Version 1.1

INTERVIEWER: FOR EACH SITE REPORTED ASK Q.53A THROUGH Q.53E

SKIN CANCER ONLY

SITE 1	SITE 2	SITE 3
<p>53A.1 In what month and year was cancer of the (SITE) <u>first</u> diagnosed?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>77-80/ BEGIN DECK 45</p>	<p>53A.1 In what month and year was cancer of the (SITE) <u>first</u> diagnosed?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>15-18/</p>	<p>53A.1 In what month and year was cancer of the (SITE) <u>first</u> diagnosed?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>24-27/</p>
<p>53A.2 When did you <u>last consult</u> a doctor for cancer of (SITE)?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>10-13/</p>	<p>53A.2 When did you <u>last consult</u> a doctor for cancer of (SITE)?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>19-22/</p>	<p>53A.2 When did you <u>last consult</u> a doctor for cancer of (SITE)?</p> <p> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>28-31/</p>
<p>SHOW PARTICIPANT HAND CARD P</p>	<p>SHOW PARTICIPANT HAND CARD P</p>	<p>SHOW PARTICIPANT HAND CARD P</p>
<p>53B. What kind of skin cancer was this?</p> <p>Basal cell carcinoma    1   14/</p> <p>Squamous cell carcinoma ..... 2</p> <p>Melanoma ..... 3</p> <p>Cancer metastatic to the skin ..... 4</p> <p>DON'T KNOW ..... 8</p>	<p>53B. What kind of skin cancer was this?</p> <p>Basal cell carcinoma    1   23/</p> <p>Squamous cell carcinoma ..... 2</p> <p>Melanoma ..... 3</p> <p>Cancer metastatic to the skin ..... 4</p> <p>DON'T KNOW ..... 8</p>	<p>53B. What kind of skin cancer was this?</p> <p>Basal cell carcinoma    1   32/</p> <p>Squamous cell carcinoma ..... 2</p> <p>Melanoma ..... 3</p> <p>Cancer metastatic to the skin ..... 4</p> <p>DON'T KNOW ..... 8</p>

SITE 1	SITE 2	SITE 3
<p>53C.1 What is the full name and address of the doctor or the medical facility where the <u>first</u> diagnosis was made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME 33/</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>	<p>53C.1 What is the full name and address of the doctor or the medical facility where the <u>first</u> diagnosis was made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME 34/</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>	<p>53C.1 What is the full name and address of the doctor or the medical facility where the <u>first</u> diagnosis was made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME 35/</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>
<p>53C.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN C.1, WRITE "SAME AS IN C.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>	<p>53C.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN C.1, WRITE "SAME AS IN C.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>	<p>53C.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN C.1, WRITE "SAME AS IN C.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY STATE</p>



SITE 1	SITE 2	SITE 3
<p>53D. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (SITE)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 36/ Chemotherapy ..... 2 37/ Surgery ..... 3 38/ OTHER... (SPECIFY) . 4 39/ _____</p> <p>NONE ..... 0</p>	<p>53D. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (SITE)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 56/ Chemotherapy ..... 2 57/ Surgery ..... 3 58/ OTHER... (SPECIFY) 4 59/ _____</p> <p>NONE ..... 0</p>	<p>53D. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (SITE)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 76/ Chemotherapy ..... 2 77/ Surgery ..... 3 78/ OTHER... (SPECIFY) 4 79/ _____</p> <p>NONE ..... 0</p>
<p>53E. During what month and year did you first receive (EACH TREATMENT CODED IN Q.53D) for cancer of the (SITE)?</p> <p>RADIATION    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  40-43/</p> <p>CHEMO- THERAPY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  44-47/</p> <p>SURGERY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  48-51/</p> <p>OTHER    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  52-55/</p>	<p>53E. During what month and year did you first receive (EACH TREATMENT CODED IN Q.53D) for cancer of the (SITE)?</p> <p>RADIATION    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  60-63/</p> <p>CHEMO- THERAPY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  64-67/</p> <p>SURGERY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  68-71/</p> <p>OTHER    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  72-75/</p>	<p>53E. During what month and year did you first receive (EACH TREATMENT CODED IN Q.53D) for cancer of the (SITE)?</p> <p>RADIATION    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                                  MO    YR    10-13/</p> <p>CHEMO- THERAPY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  14-17/</p> <p>SURGERY    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  18-21/</p> <p>OTHER    <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>                  MONTH    YR                                  22-25/</p>
<p>IF SECOND SITE CODED IN Q.53 GO TO SITE 2, Q.53A.1, PAGE G-31.</p>	<p>IF THIRD SITE CODED IN Q.53 GO TO SITE 3, Q.53A.1, PAGE G-31.</p>	
<p>IF Q.52 CODED "3," ASK Q.54A</p>	<p>IF Q.52 CODED "3," ASK Q.54A</p>	<p>IF Q.52 CODED "3," ASK Q.54A</p>
<p>IF Q.52 CODED "1," SKIP TO Q.55, PAGE G-37.</p>	<p>IF Q.52 CODED "1," SKIP TO Q.55, PAGE G-37.</p>	<p>IF Q.52 CODED "1," SKIP TO Q.55 PAGE G-37.</p>

## SYSTEMIC (BODY) CANCER ONLY

BEGIN DECK 47

QUESTION 54 BODY PART 1	QUESTION 54 BODY PART 2	QUESTION 54 BODY PART 3
54A. In what part of your body (is/was) cancer located? RECORD VERBATIM 26-41/ _____ _____ _____	54A. In what part of your body (is/was) cancer located? RECORD VERBATIM 51-66/ _____ _____ _____	54A. In what part of your body (is/was) cancer located? RECORD VERBATIM 10-25/ _____ _____ _____
54B. What kind of cancer was it? 42/ _____ _____ _____	54B. What kind of cancer was it? 67/ _____ _____ _____	54B. What kind of cancer was it? 26/ _____ _____ _____
54C.1 In what month and year was cancer of the (BODY PART) first diagnosed?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 43-46/	54C.1 In what month and year was cancer of the (BODY PART) first diagnosed?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 68-71/	54C.1 In what month and year was cancer of the (BODY PART) first diagnosed?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 27-30/
54C.2 When did you last consult a doctor for cancer of the (BODY PART)?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 47-50/	54C.2 When did you last consult a doctor for cancer of the (BODY PART)?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 72-75/	54C.2 When did you last consult a doctor for cancer of the (BODY PART)?  <div style="display: flex; justify-content: space-around;"> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> <div>--</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>MONTH</div> <div>YEAR</div> </div> 31-34/

35/R

QUESTION 54 BODY PART 1	QUESTION 54 BODY PART 2	QUESTION 54 BODY PART 3
<p>54E. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (BODY PART)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 36/  Chemotherapy ..... 2 37/  Surgery ..... 3 38/  OTHER... (SPECIFY) . 4 39/  _____</p> <p>NONE ..... 0 40/R</p>	<p>54E. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (BODY PART)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 41/  Chemotherapy ..... 2 42/  Surgery ..... 3 43/  OTHER... (SPECIFY) 4 44/  _____</p> <p>NONE ..... 0 45/R</p>	<p>54E. SHOW PARTICIPANT HAND CARD Q. What treatments or medicines (do/did) you take for cancer of the (BODY PART)? CODE ALL THAT APPLY</p> <p>Radiation ..... 1 46/  Chemotherapy ..... 2 47/  Surgery ..... 3 48/  OTHER... (SPECIFY) .. 4 49/  _____</p> <p>NONE ..... 0</p>
<p>54F. During what month and year did you first receive (EACH TREATMENT CODED IN E) for cancer of the (BODY PART)?</p> <p>RADIATION     <input type="text"/> - <input type="text"/>                      MO       YR                                   50-53/  CHEMO-  THERAPY     <input type="text"/> - <input type="text"/>                      MO       YR                                   54-57/  SURGERY     <input type="text"/> - <input type="text"/>                      MO       YR                                   58-61/  OTHER         <input type="text"/> - <input type="text"/>                      MO       YR                                   62-65/</p>	<p>54F. During what month and year did you first receive (EACH TREATMENT CODED IN E) for cancer of the (BODY PART)?</p> <p>RADIATION     <input type="text"/> - <input type="text"/>                      MO       YR                                   67-70/  CHEMO-  THERAPY     <input type="text"/> - <input type="text"/>                      MO       YR                                   71-74/  SURGERY     <input type="text"/> - <input type="text"/>                      MO       YR                                   75-78/  OTHER         <input type="text"/> - <input type="text"/>                      MO       YR                                   BEGIN DECK 48                                   10-13/</p>	<p>54F. During what month and year did you first receive (EACH TREATMENT CODED IN E) for cancer of the (BODY PART)?</p> <p>RADIATION     <input type="text"/> - <input type="text"/>                      MO       YR                                   15-18/  CHEMO-  THERAPY     <input type="text"/> - <input type="text"/>                      MO       YR                                   19-22/  SURGERY     <input type="text"/> - <input type="text"/>                      MO       YR                                   23-26/  OTHER         <input type="text"/> - <input type="text"/>                      MO       YR                                   27-30/</p>
<p>54G. IS THERE ANOTHER BODY PART AFFECTED?</p> <p>YES.... (GO TO Q.54A BODY PART 2) ... 1</p> <p>NO.... (SKIP TO Q.55 PAGE G-37) ..... 2  66/</p>	<p>54G. IS THERE ANOTHER BODY PART AFFECTED?</p> <p>YES.... (GO TO Q.54A BODY PART 3) ... 1</p> <p>NO.... (SKIP TO Q.55 PAGE G-37) ..... 2  14/</p>	<p>54G. IS THERE ANOTHER BODY PART AFFECTED?</p> <p>YES.... (GO TO NEW QUEX) ..... 1</p> <p>NO.... (SKIP TO Q.55 PAGE G-37) ..... 2  31/</p>

QUESTION 54 BODY PART 1	QUESTION 54 BODY PART 2	QUESTION 54 BODY PART 3
<p>54D.1 What is the full name and address of the doctor or the medical facility where the diagnosis was <u>first</u> made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>	<p>54D.1 What is the full name and address of the doctor or the medical facility where the diagnosis was <u>first</u> made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>	<p>54D.1 What is the full name and address of the doctor or the medical facility where the diagnosis was <u>first</u> made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>
<p>54D.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN D.1, WRITE "SAME AS IN D.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>	<p>54D.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN D.1, WRITE "SAME AS IN D.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>	<p>54D.2 What is the full name and address of the doctor or medical facility you <u>last</u> consulted? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY. IF SAME AS IN D.1, WRITE "SAME AS IN D.1"</p> <p>_____ PHYSICIAN'S LAST NAME</p> <p>_____ FIRST NAME</p> <p>OR</p> <p>_____ FACILITY NAME</p> <p>_____ STREET ADDRESS</p> <p>_____ CITY                      STATE</p>

55. At any time since (DATE OF LAST INTERVIEW) has a doctor told you that you had leukemia?

YES ..... (ASK Q.55A THROUGH Q.55F) ..... 1

32/

NO ..... (GO TO Q.56, PAGE G-39) ..... 2

55A. Thinking about the period between (DATE OF LAST INTERVIEW) and now, in what month and year was your leukemia diagnosed?

-     
 MONTH      YEAR

33-36/

55B. What is the name and address of the doctor or the medical facility where the diagnosis was made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.

\_\_\_\_\_  
PHYSICIAN'S LAST NAME

37/

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

\_\_\_\_\_  
STATE

55C. What treatments or medicines have you taken for leukemia since (DATE OF LAST INTERVIEW)?

1) \_\_\_\_\_

38-40/

2) \_\_\_\_\_

41-43/

3) \_\_\_\_\_

44-46/

55D. For the period between (DATE OF LAST INTERVIEW) and now, during what month and year did you first receive (EACH TREATMENT OR MEDICINE IN C)?

MONTH      YR.

TREATMENT 1    -

47-50/

TREATMENT 2    -

51-54/

TREATMENT 3    -

55-58/

55E. What is the name and address of the doctor or medical facility you last consulted about your leukemia?  
COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.

_____	
PHYSICIAN'S LAST NAME	
_____	
FIRST NAME	
OR	
_____	
FACILITY NAME	
_____	
STREET ADDRESS	
_____	
CITY	STATE

59/

55F. During what month and year did you last consult (NAME IN Q.55E)?

____	-	____
MONTH		YEAR

60-63/

	A.	B.	C.	D.
56. Since (DATE OF LAST INTERVIEW) have you had . . .	FOR EACH YES, ASK A AND B. SHOW PARTICIPANT HAND CARD J. On what part of your body did you have (CONDITION)? Any other part?	Did you discuss (CONDITION) with a doctor since (DATE OF LAST INTERVIEW)?	ASK C THROUGH G FOR EACH "YES" AT B. What was the diagnosis?	What is the name and address of the doctor or medical facility? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.
56.1 Patches of your skin change color  YES . . . . . 1  NO . . . (SKIP TO Q.56.2 BELOW) . 2 64/	<input type="checkbox"/> <input type="checkbox"/> SITE CODE 65-66/  <input type="checkbox"/> <input type="checkbox"/> SITE CODE 67-68/  <input type="checkbox"/> <input type="checkbox"/> SITE CODE 69-70/	YES . . . . . 1  NO . . . (SKIP TO Q.56.2 BELOW) . . . 2 71/	_____ _____ 72/	_____ PHYSICIAN'S LAST NAME/FACILITY 73/  _____ FIRST NAME  _____ ADDRESS  _____ CITY STATE
56.2 Easier bruising of the skin than usual?  YES . . . . . 1  NO . . . (SKIP TO Q.56.3, PAGE G-43) . . . 2 74/	<input type="checkbox"/> <input type="checkbox"/> SITE CODE 75-76/  <input type="checkbox"/> <input type="checkbox"/> SITE CODE 77-78/  <input type="checkbox"/> <input type="checkbox"/> SITE CODE 79-80/	BEGIN DECK 49 YES . . . . . 1  NO . . . (SKIP TO Q.56.3, PAGE G-41) . . . . . 2 10/	_____ _____ 11/	_____ PHYSICIAN'S LAST NAME/FACILITY 12/  _____ FIRST NAME  _____ ADDRESS  _____ CITY STATE

- CODES FOR Q.56**
- |  |   |
|--|---|
| CODES: (01) Scalp or Forehead              | (12) Arm                                  |
| (02) Eye Lid                               | (13) Hand                                 |
| (03) Ear                                   | (14) Arm or Hand, Not Otherwise Specified |
| (04) Nose                                  | (15) Genitals                             |
| (05) Head or Neck, Not Otherwise Specified | (16) Leg                                  |
| (06) Cheek, chin or jaw                    | (17) Foot                                 |
| (07) Neck or Supraclavicular               | (18) Leg or Foot, Not Otherwise Specified |
| (08) Vermilion                             | (19) Skin, Not Otherwise Specified        |
| (09) Trunk, Front                          | (20) Upperlip, Not Otherwise Specified    |
| (10) Trunk, Back                           | (21) Lowerlip, Not Otherwise Specified    |
| (11) Trunk, Not Otherwise Specified        | (22) Lip, Not Otherwise Specified         |

E.	F.	G.
<p>56. ASK E THROUGH G FOR EACH "YES" AT B. During what month and year was that?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>13-16/</p>	<p>What is the name and address of the doctor or medical facility you last consulted about (CONDITION)? IF DIFFERENT DOCTOR IN D, COMPLETE AUTHORIZATION FORM.</p> <p> _____  PHYSICIAN'S LAST NAME </p> <p>17/</p> <p> _____  FIRST NAME  OR  _____  FACILITY NAME </p> <p> _____  STREET ADDRESS </p> <p> _____  CITY      STATE </p>	<p>During what month and year did you last consult (NAME FROM F)?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>18-21/</p> <p>(SKIP BACK TO Q.56.2, PAGE G-39)</p>
<p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>22-25/</p>	<p> _____  PHYSICIAN'S LAST NAME </p> <p>26/</p> <p> _____  FIRST NAME  OR  _____  FACILITY NAME </p> <p> _____  STREET ADDRESS </p> <p> _____  CITY      STATE </p>	<p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>27-30/</p> <p>(GO TO Q.56.3, PAGE G-41)</p>



	A.	B.	C.	D.
56. Since (DATE OF LAST INTERVIEW) have you had ...	IF YES AT Q.56.3, ASK A AND B. SHOW PARTICIPANT HAND CARD J. On what part of your body did you have (CONDITION)? Any other part?	Did you discuss (CONDITION) with a doctor since (DATE OF LAST INTERVIEW)?	ASK C THROUGH G FOR EACH "YES" AT B. What was the diagnosis?	What is the name and address of the doctor or medical facility? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.
56.3 Skin that was extra sensitive or seemed to hurt for no reason?  YES ..... 1  NO. . . (SKIP TO Q.56.4 PAGE G-43) ... 2 31/	<div> <input type="checkbox"/><input type="checkbox"/>            SITE CODE 32-33/         </div> <div> <input type="checkbox"/><input type="checkbox"/>            SITE CODE 34-35/         </div> <div> <input type="checkbox"/><input type="checkbox"/>            SITE CODE 36-37/         </div>	YES ..... 1  NO. . . (SKIP TO Q.56.4 PAGE G-43) 2 38/	<div>_____</div> <div>_____ 39/</div>	<div>_____</div> PHYSICIAN'S LAST NAME/FACILITY 40/  <div>_____</div> FIRST NAME  <div>_____</div> ADDRESS  <div>_____</div> CITY <div>____ ____ ____</div> STATE

## CODES FOR Q.56

CODES: (01) Scalp or Forehead  
 (02) Eye Lid  
 (03) Ear  
 (04) Nose  
 (05) Head or Neck, Not Otherwise Specified  
 (06) Cheek, chin or jaw  
 (07) Neck or Supraclavicular  
 (08) Vermilion  
 (09) Trunk, Front  
 (10) Trunk, Back  
 (11) Trunk, Not Otherwise Specified  
 (12) Arm  
 (13) Hand

(14) Arm or Hand, Not Otherwise Specified  
 (15) Genitals  
 (16) Leg  
 (17) Foot  
 (18) Leg or Foot, Not Otherwise Specified  
 (19) Skin, Not Otherwise Specified  
 (20) Upperlip, Not Otherwise Specified  
 (21) Lowerlip, Not Otherwise Specified  
 (22) Lip, Not Otherwise Specified

E.	F.	G.
<p>56. ASK E THROUGH G FOR EACH "YES" AT B. During what month and year was that?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>41-44/</p>	<p>What is the name and address of the doctor or medical facility you last consulted about (CONDITION)? IF DIFFERENT DOCTOR IN D, COMPLETE AUTHORIZATION FORM.</p> <p> <input type="text"/>  PHYSICIAN'S LAST NAME </p> <p>45/</p> <p> <input type="text"/>  FIRST NAME </p> <p>OR</p> <p> <input type="text"/>  FACILITY NAME </p> <p> <input type="text"/>  STREET ADDRESS </p> <p> <input type="text"/> <input type="text"/> <input type="text"/>  CITY      STATE </p>	<p>During what month and year did you last consult (NAME FROM F)?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>46-49/</p>

THIS PAGE INTENTIONALLY BLANK



D.	E.	F.	G.
56. ASK D THROUGH G FOR EACH YES IN Q.56.4 OR Q.56.5. Between (DATE OF LAST INTERVIEW) and now, during what months and year(s) was the (CONDITION) most intense?	Did you see a doctor for (CONDITION) since (DATE OF LAST INTERVIEW)?	What was the diagnosis?	What is the name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.
<div>____ MONTH    ____ YEAR</div> <div>66-69/</div> <div>TO</div> <div>____ MONTH    ____ YEAR</div> <div>70-73/</div>	YES ..... 1 NO. .... (SKIP BACK TO Q.56.5, PAGE G-43) ... 2 74/	<div>_____</div> <div>_____</div> <div>_____</div> <div>75/</div>	<div>_____ PHYSICIAN'S LAST NAME 76/</div> <div>_____ FIRST NAME</div> <div>OR</div> <div>_____ FACILITY NAME</div> <div>_____ STREET ADDRESS</div> <div>_____ CITY                      ____ STATE</div>
<div>____ MONTH    ____ YEAR</div> <div>77-80/</div> <div>TO</div> <div>BEGIN DECK 50</div> <div>____ MONTH    ____ YEAR</div> <div>10-13/</div>	YES ..... 1 NO. .... (SKIP TO Q.57.1, PAGE G-46) ... 2 14/	<div>_____</div> <div>_____</div> <div>_____</div> <div>15/</div>	<div>_____ PHYSICIAN'S LAST NAME 16/</div> <div>_____ FIRST NAME</div> <div>OR</div> <div>_____ FACILITY NAME</div> <div>_____ STREET ADDRESS</div> <div>_____ CITY                      ____ STATE</div>

H.	I.	J.
<p>ASK H THROUGH J FOR EACH YES IN Q.56.4E OR Q.56.5E. During what month and year was that?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>17-20/</p>	<p>What is the name and address of the doctor or medical facility you last consulted about (CONDITION)? IF DIFFERENT DOCTOR IN G, COMPLETE AUTHORIZATION FORM.</p> <p>PHYSICIAN'S LAST NAME</p> <p>FIRST NAME</p> <p>OR</p> <p>FACILITY NAME</p> <p>STREET ADDRESS</p> <p>CITY      STATE</p>	<p>During what month and year did you last consult (NAME FROM I)?</p> <p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>22-25/</p> <p>(SKIP BACK TO Q.56.5, PAGE G-43)</p>
<p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>14-17/</p>	<p>PHYSICIAN'S LAST NAME</p> <p>FIRST NAME</p> <p>OR</p> <p>FACILITY NAME</p> <p>STREET ADDRESS</p> <p>CITY      STATE</p>	<p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR </p> <p>31-34/</p>

B-137

D.	E.	F.	G.
57. ASK D THROUGH G FOR EACH YES IN Q.57. Between (DATE OF LAST INTERVIEW) and now, during what months and year(s) was the (CONDITION) most intense?	Did you see a doctor for (CONDITION) since (DATE OF LAST INTERVIEW)?	What was the diagnosis?	What is the name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.
<div> <div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div>MONTH YEAR</div> <div>51-54/</div> <div>TO</div> <div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div>MONTH YEAR</div> <div>55-58/</div> </div>	<div>           YES ..... 1            NO.... (SKIP BACK TO Q.57.2 PAGE G-46) .... 2  <div>59/</div> </div>	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>60/</div> </div>	<div> <div>PHYSICIAN'S LAST NAME</div> <div>61/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div></div> <div></div> <div></div> </div> <div>CITY STATE</div> </div>
<div> <div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div>MONTH YEAR</div> <div>62-65/</div> <div>TO</div> <div> <div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> </div> </div> <div>MONTH YEAR</div> <div>66-69/</div> </div>	<div>           YES ..... 1            NO.... (SKIP TO Q.58, PAGE G-49) ..... 2  <div>70/</div> </div>	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>71/</div> </div>	<div> <div>PHYSICIAN'S LAST NAME</div> <div>72/</div> <div>FIRST NAME</div> <div>OR</div> <div>FACILITY NAME</div> <div>STREET ADDRESS</div> <div> <div></div> <div></div> <div></div> </div> <div>CITY STATE</div> </div>

B-138



H.	I.	J.
57. During what month and year was that?	What is the name and address of the doctor or medical facility you last consulted about (CONDITION)? IF DIFFERENT DOCTOR IN G, COMPLETE AUTHORIZATION FORM.	During what month and year did you last consult (NAME FROM I)?  BEGIN DECK 51
<div>____ MONTH ____ YEAR</div> <div>73-76/</div>	<div>____ PHYSICIAN'S LAST NAME ____ 77/</div> <div>____ FIRST NAME ____</div> <div>OR</div> <div>____ FACILITY NAME ____</div> <div>____ STREET ADDRESS ____</div> <div>____ CITY ____ STATE ____</div>	<div><div>____ MONTH ____ YEAR</div><div>10-13/</div></div> <div>GO TO Q.57.2, PAGE G-46</div>
<div>____ MONTH ____ YEAR</div> <div>14-17/</div>	<div>____ PHYSICIAN'S LAST NAME ____ 18/</div> <div>____ FIRST NAME ____</div> <div>OR</div> <div>____ FACILITY NAME ____</div> <div>____ STREET ADDRESS ____</div> <div>____ CITY ____ STATE ____</div>	<div><div>____ MONTH ____ YEAR</div><div>19-22/</div></div>

THIS PAGE INTENTIONALLY BLANK

	A.	B.	C.
58. Aside from injury, since (DATE OF LAST INTERVIEW) have you had ...	ASK A THROUGH C FOR EACH YES IN Q.58. Thinking about the period between (DATE OF LAST INTERVIEW) and now, when did you first notice (CONDITION)?	Which limbs or muscles were affected?	Do you still have (CONDITION)?
58.1 A reduction in grip strength  YES ..... 1  NO. . . (SKIP TO Q.IS51, IN I.S.R.B. PAGE 13) . 2 23/	<div>    </div> <div>    </div> <div>MONTH    YEAR</div> <div>24-27/</div>	<div>_____</div> <div>_____</div> <div>_____</div> <div>28-29/</div>	YES ..... 1 NO ..... 2 30/

D.	E.	F.	G.
<p>58. ASK D THROUGH G FOR EACH YES IN Q.58. Between (DATE OF LAST INTERVIEW) and now, during what months and year(s) was the (CONDITION) most intense?</p>	<p>Did you see a doctor for (CONDITION) since (DATE OF LAST INTERVIEW)?</p>	<p>What was the diagnosis?</p>	<p>What is the name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? COMPLETE MEDICAL AUTHORIZATION FORM IF NECESSARY.</p>
<p> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR  31-34/  TO  <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  MONTH      YEAR  35-38/ </p>	<p> YES ..... 1  NO.... (SKIP TO Q.59 PAGE G-52) ... 2  39/ </p>	<p> _____  _____  _____  40/ </p>	<p> _____  PHYSICIAN'S LAST NAME 41/  _____  FIRST NAME  OR  _____  FACILITY NAME  _____  STREET ADDRESS  _____  CITY      STATE </p>

H.	I.	J.
58. During what month and year was that?	What is the name and address of the doctor or medical facility you last consulted about (CONDITION)? IF DIFFERENT DOCTOR IN G, COMPLETE AUTHORIZATION FORM.	During what month and year did you last consult (NAME FROM I)?
<div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> </div> <div> <div>MONTH</div> <div>YEAR</div> </div> <div>42-45/</div>	<div> <div>PHYSICIAN'S LAST NAME</div> <div>46/</div> </div> <div> <div>FIRST NAME</div> <div>OR</div> </div> <div> <div>FACILITY NAME</div> </div> <div> <div>STREET ADDRESS</div> </div> <div> <div> <div></div><div></div><div></div> </div> <div> <div>CITY</div> <div>STATE</div> </div> </div>	<div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> </div> <div> <div>MONTH</div> <div>YEAR</div> </div> <div>47-50/</div>

INTERVIEWER: BEFORE ASKING QUESTION 59 ON NEXT PAGE, SKIP TO Q.IS51, in I.S.R.B. on Page 13.

59. (Besides the prescribed medicines you told me about) are you currently taking any (other) prescribed medicines?

YES ..... (ASK Q.59A) ..... 1

51/

NO ..... (SKIP TO SECTION H) ..... 2

A. Please list the name of each medication and the condition for which it was prescribed.

MEDICATION

CONDITION

1) \_\_\_\_\_

1) \_\_\_\_\_

52/

2) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

3) \_\_\_\_\_

**SECTION H: HEALTH HABITS****FOR THIS SECTION YOU WILL NEED:**

- Hand Card R
- Hand Card S
- Hand Card T
- Hand Card U
- Hand Card V
- Hand Card W
- Hand Card X
- Hand Card Y
- Hand Card Z
- Hand Card AA
- Hand Card BB
- Hand Card CC
- Hand Card DD
- Hand Card EE
- Hand Card FF

1A. WAS R INTERVIEWED IN 1985/1986 OR 1987/1988?

YES ..... (SKIP TO Q.62, PAGE H-23) ..... 1

NO ..... 2

1B. THESE QUESTIONS ARE ASKED TO NEW PARTICIPANTS OR THOSE COMPLIANT ONLY AT BASELINE. The next set of questions refers to smoking habits.

Have you ever smoked at least as many as 5 packs of cigarettes, that is, 100 cigarettes, during your entire life?

YES ..... 1 53/

NO ..... (SKIP TO Q.22, PAGE H-9) ..... 2

2. Do you now smoke cigarettes?

YES ..... 1 54/

NO ..... (SKIP TO Q.11, PAGE H-5) ..... 2

**CURRENT CIGARETTE SMOKER SECTION**

3. On average, how many cigarettes do you smoke a day?

IF R ANSWERS BY GIVING NUMBER OF PACKS OF CIGARETTES, RECORD VERBATIM IN MARGIN.  
THEN MULTIPLY THE NUMBER OF PACKS BY 20 AND ENTER THE NUMBER OF CIGARETTES  
SMOKED.

ENTER NUMBER OF CIGARETTES:   PER DAY 55-56/

(IF NOT EVERY DAY:) #   PER MONTH 57-58/

OR

(IF NOT EVERY DAY:) #   PER YEAR 59-60/

4. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (NUMBER IN Q.3)  
cigarettes (per day/per month/per year)?

Less than 2 years .....	01	61-62/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	

5. What brand of cigarettes do you usually smoke? (IF MORE THAN ONE BRAND OR NO REGULAR  
BRAND MENTIONED ASK: Which one do you smoke the most?)

ENTER BRAND \_\_\_\_\_

OFFICE USE

63-65/

NO REGULAR BRAND ..... (SKIP TO Q.8, PAGE H-3) ..... 996



6. For how long now have you been smoking this particular brand?

ENTER DAYS:	<input type="text"/>	<input type="text"/>	66-67/
OR WEEKS:	<input type="text"/>	<input type="text"/>	68-69/
OR MONTHS:	<input type="text"/>	<input type="text"/>	70-71/
OR YEARS:	<input type="text"/>	<input type="text"/>	72-73/

7. What type of cigarettes are they? Are they . . . (READ EACH PAIR TOGETHER)

	CODE ONE NUMBER	
A. Filter tip or . . . . .	1	74/
Non-filter tip? . . . . .	2	

	CODE ONE NUMBER	
B. Regular size . . . . .	1	75/
King size or . . . . .	2	
100 Millimeter? . . . . .	3	

8. SHOW PARTICIPANT HAND CARD S. Now I am going to show you a diagram of different size cigarettes. Please look at the picture of the (KIND OF CIGARETTE NAMED IN Q.7A AND Q.7B). Now, considering your style of smoking--for example, how long you usually leave the cigarette in an ashtray or just hold it in your hand--tell me the number which indicates how much of the cigarette you actually smoke.

SECTION 1 . . . . .	1	76/
SECTION 2 . . . . .	2	
SECTION 3 . . . . .	3	
SECTION 4 . . . . .	4	

9. During the period when you were smoking the most heavily on a regular basis, about how many cigarettes did you usually smoke in a day? (CONVERT PACKS TO NUMBER OF CIGARETTES BY MULTIPLYING NUMBER OF PACKS BY 20)

ENTER NUMBER OF CIGARETTES:   PER DAY 77-78/

(IF NOT EVERY DAY:) #   PER MONTH 79-80/

OR

BEGIN DECK 52

(IF NOT EVERY DAY:) #   PER YEAR 10-11/

A. When was that?

FROM

-    
MONTH YEAR

12-15/

TO

-    
MONTH YEAR

16-19/

10. SHOW PARTICIPANT HAND CARD T. When you smoke cigarettes, how deeply do you usually inhale?  
Would you say:

As deeply into the chest as possible ..... 1 20/  
Only partly into the chest ..... 2  
As far back as the throat ..... 3  
Well back into the mouth, or ..... 4  
Just puff and don't really draw it in at all ..... 5  
DON'T KNOW ..... 8

SKIP TO Q.22, PAGE H-9

**FORMER CIGARETTE SMOKER SECTION**

11. How long has it been since you smoked cigarettes fairly regularly (RECORD NUMBER)?

ENTER DAYS:   21-22/

OR WEEKS:   23-24/

OR MONTHS:   25-26/

OR YEARS:   27-28/

NEVER SMOKED REGULARLY ..... (SKIP TO Q.22, PAGE H-9) ..... 1 29/

12. On the average, about how many cigarettes a day were you smoking at that time?

IF R ANSWERS BY GIVING NUMBER OF PACKS OF CIGARETTES, RECORD VERBATIM IN MARGIN.  
THEN MULTIPLY THE NUMBER OF PACKS BY 20 AND ENTER THE NUMBER OF CIGARETTES  
SMOKED.

ENTER NUMBER OF CIGARETTES:   PER DAY 30-31/

(IF NOT EVERY DAY:) #   PER MONTH 32-33/

OR

(IF NOT EVERY DAY:) #   PER YEAR 34-35/

13. SHOW PARTICIPANT HAND CARD R. How long had you been smoking (NUMBER IN Q.12) cigarettes (per day/per month/per year)?

Less than 2 years .....	01	36-37/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	

14. You mentioned that you have not smoked regularly for (TIME IN Q.11). Did you ever stay off cigarettes for a longer period of time?

YES .....	1	38/
NO .....	(SKIP TO Q.16, BELOW) 2	

15. How long did you stay off cigarettes at that time? (PROBE: About how long did you stay off?)

ENTER DAYS:	<input type="text"/> <input type="text"/>	39-40/
OR WEEKS:	<input type="text"/> <input type="text"/>	41-42/
OR MONTHS:	<input type="text"/> <input type="text"/>	43-44/
OR YEARS:	<input type="text"/> <input type="text"/>	45-46/

16. What brand of cigarettes did you usually smoke? (IF MORE THAN ONE BRAND OR NO REGULAR BRAND MENTIONED ASK: Which one did you smoke the most?)

ENTER BRAND \_\_\_\_\_

OFFICE USE

47-49/

NO REGULAR BRAND. .... (SKIP TO Q.19, PAGE H-7) ..... 996

17. For how long did you smoke this particular brand?

ENTER DAYS:	<input type="text"/> <input type="text"/>	50-51/
OR WEEKS:	<input type="text"/> <input type="text"/>	52-53/
OR MONTHS:	<input type="text"/> <input type="text"/>	54-55/
OR YEARS:	<input type="text"/> <input type="text"/>	56-57/

18. What type of cigarettes were they? Were they ... (READ EACH PAIR TOGETHER)

	CODE ONE NUMBER	
A. Filter tip or .....	1	58/
Non-filter tip? .....	2	
	CODE ONE NUMBER	
B. Regular size .....	1	59/
King size or .....	2	
100 Millimeter? .....	3	

19. SHOW PARTICIPANT HAND CARD S. Now I am going to show you a diagram of different size cigarettes. Please look at the picture of the (KIND OF CIGARETTE IN Q.18A AND Q.18B). Now, considering your style of smoking—for example, how long you usually leave the cigarette in an ashtray or just hold it in your hand—tell me the number which indicates how much of the cigarette you actually smoked.

Section 1 .....	1	60/
Section 2 .....	2	
Section 3 .....	3	
Section 4 .....	4	

20. During the period when you were smoking the most heavily on a regular basis, about how many cigarettes did you usually smoke in a day?

ENTER NUMBER OF CIGARETTES:   PER DAY 61-62/

(IF NOT EVERY DAY:) #   PER MONTH 63-64/

OR

(IF NOT EVERY DAY:) #   PER YEAR 65-66/

- A. When was that?

FROM

--    
MONTH YEAR

67-70/

TO

--    
MONTH YEAR

71-74/

21. SHOW PARTICIPANT HAND CARD T. When you smoked cigarettes, how deeply did you usually inhale?  
Would you say:

As deeply into the chest as possible ..... 1 75/  
Only partly into the chest ..... 2  
As far back as the throat ..... 3  
Well back into the mouth, or ..... 4  
Just puff and don't really draw it in at all ..... 5  
DON'T KNOW ..... 8

**CURRENT PIPE SMOKER SECTION**

22. During your entire life, have you smoked at least as many as 50 pipefuls of tobacco?

YES ..... 1 76/  
NO ..... (SKIP TO Q.35, PAGE H-14) ..... 2

23. Do you now smoke a pipe?

YES ..... 1 77/  
NO ..... (SKIP TO Q.28, PAGE H-11) ..... 2

24. About how many average sized pipefuls of tobacco do you usually smoke in a day?

ENTER NUMBER OF PIPEFULS OF TOBACCO:   PER DAY 78-79/  
BEGIN DECK 53

(IF NOT EVERY DAY:) #   PER MONTH 10-11/

OR

(IF NOT EVERY DAY:) #   PER YEAR 12-13/

25. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (NUMBER IN Q.24) pipefuls (per day/per month/per year)?

Less than 2 years ..... 01 14-15/  
2-5 years ..... 02  
6-10 years ..... 03  
11-15 years ..... 04  
16-20 years ..... 05  
21-25 years ..... 06  
26-30 years ..... 07  
31-35 years ..... 08  
36-40 years ..... 09  
More than 40 years ..... 10

26. During the period when you were smoking the most heavily, about how many pipefuls of tobacco did you usually smoke in a day?

ENTER NUMBER   PER DAY 16-17/

(IF NOT EVERY DAY:) #   PER MONTH 18-19/

OR

(IF NOT EVERY DAY:) #   PER YEAR 20-21/

- A. When was that?

FROM

-    
MONTH YEAR

22-25/

TO

-    
MONTH YEAR

26-29/

27. SHOW PARTICIPANT HAND CARD T. When you smoke a pipe, how deeply do you usually inhale? Would you say:

As deeply into the chest as possible .....	1	30/
Only partly into the chest .....	2	
As far back as the throat .....	3	
Well back into the mouth, or .....	4	
Just puff and don't really draw it in at all .....	5	
DON'T KNOW .....	8	

SKIP TO Q.35, PAGE H-14



**FORMER PIPE SMOKER SECTION**

28. How long has it been since you smoked a pipe fairly regularly? (RECORD NUMBER)

ENTER DAYS:   31-32/

OR WEEKS:   33-34/

OR MONTHS:   35-36/

OR YEARS:   37-38/

NEVER SMOKED REGULARLY ..... (SKIP TO Q.35, PAGE H-14) ..... 1 39/

29. On the average, about how many pipefuls of tobacco a day were you smoking at that time?

ENTER NUMBER OF PIPEFULS OF TOBACCO:   PER DAY 40-41/

(IF NOT EVERY DAY:) #   PER MONTH 42-43/

OR

(IF NOT EVERY DAY:) #   PER YEAR 44-45/

30. SHOW PARTICIPANT HAND CARD R. For how long did you smoke (NUMBER IN Q.29) pipefuls of tobacco (per day/per week/per month)?

Less than 2 years .....	01	46-47/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	

31. You mentioned that you have not smoked regularly for (TIME RECORDED IN Q.28). Did you ever not smoke a pipe for a longer period of time?

YES ..... 1 48/

NO ..... (SKIP TO Q.33, BELOW) ..... 2

32. How long did you not smoke a pipe at that time?

ENTER DAYS:   49-50/

OR WEEKS:   51-52/

OR MONTHS:   53-54/

OR YEARS:   55-56/

33. During the period when you were smoking the most heavily on a regular basis, about how many pipefuls of tobacco did you usually smoke in a day?

ENTER NUMBER   PER DAY 57-58/

(IF NOT EVERY DAY:) #   PER MONTH 59-60/

OR

(IF NOT EVERY DAY:) #   PER YEAR 61-62/

A. When was that?

FROM

-    
MONTH YEAR

63-66/

TO

-    
MONTH YEAR

67-70/

34. SHOW PARTICIPANT HAND CARD T. When you smoked a pipe, how deeply did you usually inhale?  
Would you say:

As deeply into the chest as possible .....	1	71/
Only partly into the chest .....	2	
As far back as the throat .....	3	
Well back into the mouth, or .....	4	
Just puff and don't really draw it in at all .....	5	
DON'T KNOW .....	8	

B-157

**CURRENT CIGAR SMOKER SECTION**

35. During your entire life have you smoked at least as many as 50 cigars?

YES ..... 1 72/  
 NO ..... (SKIP TO Q.51, PAGE H-19) ..... 2

36. Do you now smoke cigars?

YES ..... 1 73/  
 NO ..... (SKIP TO Q.42, PAGE H-17) ..... 2

37. On average, about how many cigars a day do you now smoke?

ENTER NUMBER OF CIGARS:   PER DAY 74-75/

(IF NOT EVERY DAY:) #   PER MONTH 76-77/

OR

(IF NOT EVERY DAY:) #   PER YEAR 78-79/

38. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (NUMBER RECORDED IN Q.37) cigars (per day/per month/per year)?

BEGIN DECK 54  
 10-11/

Less than 2 years ..... 01  
 2-5 years ..... 02  
 6-10 years ..... 03  
 11-15 years ..... 04  
 16-20 years ..... 05  
 21-25 years ..... 06  
 26-30 years ..... 07  
 31-35 years ..... 08  
 36-40 years ..... 09  
 More than 40 years ..... 10

39. During the period when you were smoking the most heavily on a regular basis, about how many cigars did you usually smoke in a day.

ENTER NUMBER	<input type="text"/>	<input type="text"/>	PER DAY	12-13/	
(IF NOT EVERY DAY:)	#	<input type="text"/>	<input type="text"/>	PER MONTH	14-15/
OR					
(IF NOT EVERY DAY:)	#	<input type="text"/>	<input type="text"/>	PER YEAR	16-17/

- A. When was that?

FROM		
<input type="text"/>	-	<input type="text"/>
MONTH		YEAR
TO		18-21/
<input type="text"/>	-	<input type="text"/>
MONTH		YEAR
		22-25/

40. SHOW PARTICIPANT HAND CARD T. When you smoke cigars, how deeply do you usually inhale? Would you say:

As deeply into the chest as possible .....	1	26/
Only partly into the chest .....	2	
As far back as the throat .....	3	
Well back into the mouth, or .....	4	
Just puff and don't really draw it in at all .....	5	
DON'T KNOW .....	8	

41. What type of cigars do you usually smoke?

## ONLY CODE ONE TYPE

Filter tip or ..... 1 27/

Non-filter tip? ..... 2

A. SHOW PARTICIPANT HAND CARD U. Now I am going to show you a diagram of different size cigars. Please look at the picture of the (KIND OF CIGAR IN Q.41). Now considering your style of smoking—for example, how long you usually leave the cigar in an ashtray or just hold it in your hand—tell me the number which indicates how much of the cigar you actually smoke.

SECTION 1 ..... 1 28/

SECTION 2 ..... 2

SECTION 3 ..... 3

SECTION 4 ..... 4

SKIP TO Q.51, PAGE H-19

**FORMER CIGAR SMOKER SECTION**

42. How long has it been since you smoked cigars fairly regularly?

ENTER DAYS:   29-30/

OR WEEKS:   31-32/

OR MONTHS:   33-34/

OR YEARS:   35-36/

NEVER SMOKED REGULARLY ..... (SKIP TO Q.51, PAGE H-19) ..... 1 37/

43. On the average, about how many cigars a day were you smoking at that time?

ENTER NUMBER OF CIGARS:   PER DAY 38-39/

(IF NOT EVERY DAY:) #   PER MONTH 40-41/

OR

(IF NOT EVERY DAY:) #   PER YEAR 42-43/

44. SHOW PARTICIPANT HAND CARD R. For how long did you smoke (NUMBER PER DAY IN Q.43) cigars per day?

Less than 2 years ..... 01 44-45/

2-5 years ..... 02

6-10 years ..... 03

11-15 years ..... 04

16-20 years ..... 05

21-25 years ..... 06

26-30 years ..... 07

31-35 years ..... 08

36-40 years ..... 09

More than 40 years ..... 10

45. You mentioned that you have not smoked regularly for (TIME RECORDED IN Q.42). Did you ever stay off cigars for a longer period of time?

YES ..... 1

46/

NO ..... (SKIP TO Q.47, BELOW) ..... 2

46. How long did you stay off cigars at that time?

ENTER DAYS:

47-48/

OR WEEKS:

49-50/

OR MONTHS:

51-52/

OR YEARS:

53-54/

47. What type of cigars did you usually smoke just before you stopped smoking cigars regularly?

ONLY CODE ONE TYPE

Filter tip or ..... 1

55/

Non-filter tip? ..... 2

48. SHOW PARTICIPANT HAND CARD U. Now I am going to show you a diagram of different size cigars. Please look at the picture of the (KIND OF CIGAR IN Q.47). Now, considering your style of smoking—for example, how long you usually leave the cigar in an ashtray or just hold it in your hand—tell me the number which indicates how much of the cigar you actually smoke.

SECTION 1 ..... 1

56/

SECTION 2 ..... 2

SECTION 3 ..... 3

SECTION 4 ..... 4



49. During the period when you were smoking the most on a regular basis, about how many cigars did you usually smoke in a day?

ENTER NUMBER   PER DAY 57-58/

(IF NOT EVERY DAY:) #   PER MONTH 59-60/

OR

(IF NOT EVERY DAY:) #   PER YEAR 61-62/

- A. When was that?

FROM

MONTH -   YEAR 63-66/

TO

MONTH -   YEAR 67-70/

50. SHOW PARTICIPANT HAND CARD T. When you smoked a cigar, how deeply did you usually inhale?  
Would you say:

As deeply into the chest as possible ..... 1 71/  
Only partly into the chest ..... 2  
As far back as the throat ..... 3  
Well back into the mouth, or ..... 4  
Just puff and don't really draw it in at all ..... 5  
DON'T KNOW ..... 8

51. IS PARTICIPANT CURRENTLY LIVING WITH A SPOUSE OR PARTNER? CHECK INFORMATION SHEET.

IS ANY "NO" CODED IN SECTION E: Q.2, PAGE E-3 , Q.6C, PAGE E-10, OR Q.8C, PAGE E-14?

YES ..... 1 72/  
NO ..... (SKIP TO Q.53, PAGE H-20) ..... 2

52. Does your (spouse/partner) smoke regularly any of the following?

	YES	NO	DON'T KNOW	
Cigarettes	1	2	8	73/
Cigars	1	2	8	74/
Pipe	1	2	8	75/

53. Approximately how much smoke is there in the air in your home?

A lot .....	1	76/
A little .....	2	
NONE ..... (SKIP TO Q.56, PAGE H-21) .....	3	

54. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke in your home?

10 hours or less .....	1	77/
11 to 15 hours .....	2	
16 to 20 hours .....	3	
21 to 25 hours .....	4	
26 or more hours .....	5	

55. SHOW PARTICIPANT HAND CARD W. For how many years have you been exposed to smoke in this way? (CHECK ONLY ONE)

Less than 1 year .....	01	78-79/
1 to 4 years .....	02	
5 to 10 years .....	03	
11 to 15 years .....	04	
16 to 20 years .....	05	
21 to 30 years .....	06	
More than 30 years .....	07	
DON'T KNOW .....	98	

56. DOES R WORK? (IS "YES" CODED AT SECTION B, Q.4, PAGE B-5 OR "CURRENT JOB" CODED AT SECTION C, Q.1F PAGE C-2)?

BEGIN DECK 55

YES ..... 1 10/

NO ..... (SKIP TO Q.62, PAGE H-23) ..... 2

A. Approximately how much smoke is there in the air in the transportation you take to and from work (For example, your car, the train, the bus, etc.)?

A lot ..... 1 11/

A little ..... 2

NONE ..... (SKIP TO Q.59, PAGE H-22) ..... 3

57. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke?

10 hours or less ..... 1 12/

11 to 15 hours ..... 2

16 to 20 hours ..... 3

21 to 25 hours ..... 4

26 or more hours ..... 5

58. SHOW PARTICIPANT HAND CARD W. For how many years have you been exposed to this smoke?

Less than 1 year ..... 01 13-14/

1 to 4 years ..... 02

5 to 10 years ..... 03

11 to 15 years ..... 04

16 to 20 years ..... 05

21 to 30 years ..... 06

More than 30 years ..... 07

DON'T KNOW ..... 98

59. Approximately how much smoke is there in the air where you work?

- |                |                           |     |
|----------------|---------------------------|-----|
| A lot .....    | 1                         | 15/ |
| A little ..... | 2                         |     |
| NONE .....     | (SKIP TO Q.62, PAGE H-23) | 3   |

60. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke?

- |                        |   |     |
|------------------------|---|-----|
| 10 hours or less ..... | 1 | 16/ |
| 11 to 15 hours .....   | 2 |     |
| 16 to 20 hours .....   | 3 |     |
| 21 to 25 hours .....   | 4 |     |
| 26 or more hours ..... | 5 |     |

61. For how many years have you been exposed to this smoke at work?

- |                          |    |        |
|--------------------------|----|--------|
| Less than 1 year .....   | 01 | 17-18/ |
| 1 to 4 years .....       | 02 |        |
| 5 to 10 years .....      | 03 |        |
| 11 to 15 years .....     | 04 |        |
| 16 to 20 years .....     | 05 |        |
| 21 to 30 years .....     | 06 |        |
| More than 30 years ..... | 07 |        |

62. SHOW PARTICIPANT HAND CARD X. There are some questions that are asked in survey research that are difficult to ask directly because many people think they are too personal. While it is understandable that people feel this way, there is a real need for the information for the population as a whole. We now have a way that makes it possible for people to give information, without telling anyone about their own situation. Let me show you how this works; we will use the next question I have here as an example.

CONTINUE WITH CARD X. As you see, there are two questions on the card. One deals with the "real" question that the research is concerned with, the other is completely unrelated. Both questions can be answered "yes" or "no." One of the two questions is selected by chance and you answer it. (I'll show you how that works in a minute). I do not know which question you are answering. When all the questionnaires have been tallied, the researchers can tell how many people have smoked marijuana, but they have no way of knowing whether it was you or any other person in particular who has smoked marijuana.

#### HAND R COIN

It is very simple, as you will see. You will flip the coin. The question you will answer is selected by chance. In no way can a truthful answer prove harmful to you. There is no identifying information that can link you to your answers.

Please take the coin that you have been handed and flip it now. Don't tell me which side came up. If the coin shows heads, please answer only question 1. If the coin shows tails, please answer only question 2. I won't look to see if the coin comes up heads or tails; and you don't tell me which question you are answering. Just tell me if your answer is "yes" or "no."

YES .....	1	19/
NO .....	2	
DON'T KNOW .....	8	

- A. SHOW PARTICIPANT HAND CARD Y. Now let's do that again, using the next question. CONTINUE WITH CARD Y. Flip the coin again. If the coin turns up heads, please answer only question number 1. If the coin comes up tails, please answer only question number 2. Don't tell me the question. Is your answer "yes" or "no"?

YES .....	1	20/
NO .....	2	
DON'T KNOW .....	8	

IF PARTICIPANT INTERVIEWED IN CYCLES '85-'86 AND/OR '87-'88, GO TO Q.63, PAGE H-24.  
OTHERWISE, SKIP TO Q.64, PAGE H-43.

**SMOKING INTERVAL QUESTIONS**

63. THIS SECTION FOR PARTICIPANTS INTERVIEWED IN CYCLES '85-'86 AND/OR CYCLE '87-'88.

IF PARTICIPANT NEW TO STUDY OR ONLY COMPLAINT AT BASELINE, DO NOT ASK THIS SECTION.

63a. The next set of questions refers to smoking habits.

63-1. Have you ever smoked at least as many as 5 packs of cigarettes, that is, 100 cigarettes, during your entire life?

YES ..... 1 53/

NO ..... (SKIP TO Q.63-14, PAGE H-30) ..... 2

63-2. Do you now smoke cigarettes?

YES ..... 1 54/

NO ..... (SKIP TO Q.63-8, PAGE H-27) ..... 2

**CURRENT CIGARETTE SMOKER SECTION**

63-3. On average, how many cigarettes do you smoke a day?

IF R ANSWERS BY GIVING NUMBER OF PACKS OF CIGARETTES, RECORD VERBATIM IN MARGIN. THEN MULTIPLY THE NUMBER OF PACKS BY 20 AND ENTER THE NUMBER OF CIGARETTES SMOKED.

ENTER NUMBER OF CIGARETTES:   PER DAY 55-56/

(IF NOT EVERY DAY:) #   PER MONTH 57-58/

OR

(IF NOT EVERY DAY:) #   PER YEAR 59-60/

63-4. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (NUMBER IN Q.63-3) cigarettes (per day/per month/per year)?

Less than 2 years .....	01	61-62/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	63-73/R

63-5. What type of cigarettes are they? Are they ... (READ EACH PAIR TOGETHER)

	CODE ONE NUMBER	
A. Filter tip or .....	1	74/
Non-filter tip? .....	2	
	CODE ONE NUMBER	
B. Regular size .....	1	75/
King size or .....	2	
100 Millimeter? .....	3	76/R

63-6. During the period when you were smoking the most heavily on a regular basis, about how many cigarettes did you usually smoke in a day?

ENTER NUMBER   PER DAY 77-78/  
(IF NOT EVERY DAY:) #   PER MONTH 79-80/  
OR BEGIN DECK 52  
(IF NOT EVERY DAY:) #   PER YEAR 10-11/

A. When was that?

FROM  
  MONTH -   YEAR 12-15/  
TO  
  MONTH -   YEAR 16-19/

63-7. SHOW PARTICIPANT HAND CARD T. When you smoke cigarettes, how deeply do you usually inhale?  
Would you say:

As deeply into the chest as possible ..... 1 20/  
Only partly into the chest ..... 2  
As far back as the throat ..... 3  
Well back into the mouth, or ..... 4  
Just puff and don't really draw it in at all ..... 5  
DON'T KNOW ..... 8

(SKIP TO Q.63-14, PAGE H-30)



**FORMER CIGARETTE SMOKER SECTION**

63-8. How long has it been since you smoked cigarettes fairly regularly? (RECORD NUMBER)

ENTER DAYS:   21-22/

OR WEEKS:   23-24/

OR MONTHS:   25-26/

OR YEARS:   27-28/

NEVER SMOKED REGULARLY . . . . . (SKIP TO Q.63-14, PAGE H-30) . . . . . 1 29/

63-9. On the average, about how many cigarettes a day were you smoking at that time?

IF R ANSWERS BY GIVING NUMBER OF PACKS OF CIGARETTES, RECORD VERBATIM IN MARGIN. THEN MULTIPLY THE NUMBER OF PACKS BY 20 AND ENTER THE NUMBER OF CIGARETTES SMOKED.

ENTER NUMBER OF CIGARETTES:   PER DAY 30-31/

(IF NOT EVERY DAY:) #   PER MONTH 32-33/

OR

(IF NOT EVERY DAY:) #   PER YEAR 34-35/

63-10. SHOW PARTICIPANT HAND CARD R. How long had you been smoking (NUMBER IN Q.63-9)  
cigarettes (per day/per week/per month)?

Less than 2 years .....	01	36-37/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	38-57/R

63-11. What type of cigarettes were they? Were they ... (READ EACH PAIR TOGETHER)

	CODE ONE NUMBER	
A. Filter tip or .....	1	58/
Non-filter tip? .....	2	
	CODE ONE NUMBER	
B. Regular size .....	1	59/
King size or .....	2	
100 Millimeter? .....	3	60/R

63-12. During the period when you were smoking the most heavily on a regular basis, about how many cigarettes did you usually smoke in a day?

ENTER NUMBER   PER DAY 61-62/

(IF NOT EVERY DAY:) #   PER MONTH 63-64/

OR

(IF NOT EVERY DAY:) #   PER YEAR 65-66/

A. When was that?

FROM

-    
MONTH YEAR

67-70/

TO

-    
MONTH YEAR

71-74/

63-13. SHOW PARTICIPANT HAND CARD T. When you smoked cigarettes, how deeply did you usually inhale?  
Would you say:

As deeply into the chest as possible ..... 1 75/

Only partly into the chest ..... 2

As far back as the throat ..... 3

Well back into the mouth, or ..... 4

Just puff and don't really draw it in at all ..... 5

DON'T KNOW ..... 8

**CURRENT PIPE SMOKER SECTION**

63-14. During your entire life, have you smoked at least as many as 50 pipefuls of tobacco?

YES ..... 1 76/

NO ..... (SKIP TO Q.63-25, PAGE H-35) ..... 2

63-15. Do you now smoke a pipe?

YES ..... 1 77/

NO ..... (SKIP TO Q.63-20, PAGE H-32) ..... 2

63-16. About how many average sized pipefuls of tobacco do you usually smoke in a day?

ENTER NUMBER OF PIPEFULS OF TOBACCO:

PER DAY

78-79/

BEGIN DECK 53

(IF NOT EVERY DAY:)

# 

PER MONTH

10-11/

OR

(IF NOT EVERY DAY:)

# 

PER YEAR

12-13/

63-17. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (NUMBER IN Q.63-16) pipefuls (per day/per month/per year)?

Less than 2 years ..... 01 14-15/

2-5 years ..... 02

6-10 years ..... 03

11-15 years ..... 04

16-20 years ..... 05

21-25 years ..... 06

26-30 years ..... 07

31-35 years ..... 08

36-40 years ..... 09

More than 40 years ..... 10

63-18. During the period when you were smoking the most heavily, about how many pipefuls of tobacco did you usually smoke in a day?

ENTER NUMBER   PER DAY 16-17/

(IF NOT EVERY DAY:) #   PER MONTH 18-19/

OR

(IF NOT EVERY DAY:) #   PER YEAR 20-21/

A. When was that?

FROM

-    
MONTH YEAR

22-25/

TO

-    
MONTH YEAR

26-29/

63-19. SHOW PARTICIPANT HAND CARD T. When you smoke a pipe, how deeply do you usually inhale?  
Would you say:

- As deeply into the chest as possible ..... 1 30/
- Only partly into the chest ..... 2
- As far back as the throat ..... 3
- Well back into the mouth, or ..... 4
- Just puff and don't really draw it in at all ..... 5
- DON'T KNOW ..... 8

SKIP TO Q.63-25, PAGE H-35

**FORMER PIPE SMOKER SECTION**

63-20. How long has it been since you smoked a pipe fairly regularly? (RECORD NUMBER)

ENTER DAYS:   31-32/

OR WEEKS:   33-34/

OR MONTHS:   35-36/

OR YEARS:   37-38/

NEVER SMOKED REGULARLY ..... (SKIP TO Q.63-25, PAGE H-35) ..... 1 39/

63-21. On the average, about how many pipefuls of tobacco a day were you smoking at that time?

ENTER NUMBER OF PIPEFULS OF TOBACCO:   PER DAY 40-41/

(IF NOT EVERY DAY:) #   PER MONTH 42-43/

OR

(IF NOT EVERY DAY:) #   PER YEAR 44-45/

63-22. SHOW PARTICIPANT HAND CARD R. For how long did you smoke (NUMBER IN Q.63-21) pipefuls of tobacco (per day/per week/per month)?

Less than 2 years .....	01	46-47/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	48-56/R

63-23. During the period when you were smoking the most heavily on a regular basis, about how many pipefuls of tobacco did you usually smoke in a day?

ENTER NUMBER	<input type="text"/> <input type="text"/>	PER DAY	57-58/
(IF NOT EVERY DAY:) #	<input type="text"/> <input type="text"/>	PER MONTH	59-60/
	OR		
(IF NOT EVERY DAY:) #	<input type="text"/> <input type="text"/>	PER YEAR	61-62/

A. When was that?

FROM		
	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
	MONTH	YEAR
TO		
	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
	MONTH	YEAR

63-66/

67-70/

63-24. SHOW PARTICIPANT HAND CARD T. When you smoked a pipe, how deeply did you usually inhale?  
Would you say:

- |  |   |     |
|--|---|-----|
| As deeply into the chest as possible .....         | 1 | 71/ |
| Only partly into the chest .....                   | 2 |     |
| As far back as the throat .....                    | 3 |     |
| Well back into the mouth, or .....                 | 4 |     |
| Just puff and don't really draw it in at all ..... | 5 |     |
| DON'T KNOW .....                                   | 8 |     |



**CURRENT CIGAR SMOKER SECTION**

63-25. During your entire life have you smoked at least as many as 50 cigars?

Yes ..... 1 72/

No ..... (SKIP TO Q.63-38, PAGE H-40) ..... 2

63-26. Do you now smoke cigars?

Yes ..... 1 73/

No ..... (SKIP TO Q.63-32, PAGE H-38) ..... 2

63-27. On average, about how many cigars a day do you now smoke?

ENTER NUMBER OF CIGARS:   PER DAY 74-75/

(IF NOT EVERY DAY:) #   PER MONTH 76-77/

OR

(IF NOT EVERY DAY:) #   PER YEAR 78-79/

63-28. SHOW PARTICIPANT HAND CARD R. For how many years have you been smoking (# in Q.63-27) cigars (per day/per month/per year)?

- |                          |    |        |
|--------------------------|----|--------|
| Less than 2 years .....  | 01 | 10-11/ |
| 2-5 years .....          | 02 |        |
| 6-10 years .....         | 03 |        |
| 11-15 years .....        | 04 |        |
| 16-20 years .....        | 05 |        |
| 21-25 years .....        | 06 |        |
| 26-30 years .....        | 07 |        |
| 31-35 years .....        | 08 |        |
| 36-40 years .....        | 09 |        |
| More than 40 years ..... | 10 |        |

63-29. During the period when you were smoking the most heavily on a regular basis, about how many cigars did you usually smoke in a day?

- |                       |   |           |        |
|-----------------------|---|-----------|--------|
| ENTER NUMBER          | <input type="text"/> <input type="text"/> | PER DAY   | 12-13/ |
| (IF NOT EVERY DAY:) # | <input type="text"/> <input type="text"/> | PER MONTH | 14-15/ |
|                       | OR  |           |        |
| (IF NOT EVERY DAY:) # | <input type="text"/> <input type="text"/> | PER YEAR  | 16-17/ |

A. When was that?

- |      |   |   |
|------|---|---|
| FROM |   |   |
|      | <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> |
|      | MONTH                                     | YEAR                                      |
| TO   |   |   |
|      | <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> |
|      | MONTH                                     | YEAR                                      |
- 18-21/
- 22-25/

63-30. SHOW PARTICIPANT HAND CARD T. When you smoke cigars, how deeply do you usually inhale?

Would you say:

- |  |   |     |
|--|---|-----|
| As deeply into the chest as possible .....         | 1 | 26/ |
| Only partly into the chest .....                   | 2 |     |
| As far back as the throat .....                    | 3 |     |
| Well back into the mouth, or .....                 | 4 |     |
| Just puff and don't really draw it in at all ..... | 5 |     |
| DON'T KNOW .....                                   | 8 |     |

63-31. What type of cigars do you usually smoke?

CODE ONE NUMBER

- |                       |   |     |
|-----------------------|---|-----|
| Filter tip or .....   | 1 | 27/ |
| Non-filter tip? ..... | 2 |     |

SKIP TO Q. 63-38, PAGE H-40

B-181

**FORMER CIGAR SMOKER SECTION**

63-32. How long has it been since you smoked cigars fairly regularly?

28/R

ENTER DAYS:

29-30/

OR WEEKS:

31-32/

OR MONTHS:

33-34/

OR YEARS:

35-36/

NEVER SMOKED REGULARLY ..... (SKIP TO Q.63-38, PAGE H-40) ..... 1

37/

63-33. On the average, about how many cigars a day were you smoking at that time?

ENTER NUMBER OF CIGARS:   PER DAY

38-39/

(IF NOT EVERY DAY:) #   PER MONTH

40-41/

OR

(IF NOT EVERY DAY:) #   PER YEAR

42-43/

63-34. SHOW PARTICIPANT HAND CARD R. For how long did you smoke (NUMBER PER DAY IN Q.63-33) cigars per day?

Less than 2 years .....	01	44-45/
2-5 years .....	02	
6-10 years .....	03	
11-15 years .....	04	
16-20 years .....	05	
21-25 years .....	06	
26-30 years .....	07	
31-35 years .....	08	
36-40 years .....	09	
More than 40 years .....	10	46-54/R

63-35. What type of cigars did you usually smoke just before you stopped smoking cigars regularly?

	CODE ONE NUMBER	
Filter tip or .....	1	55/
Non-filter tip? .....	2	56/R

63-36. During the period when you were smoking the most on a regular basis, about how many cigars did you usually smoke in a day?

ENTER NUMBER   PER DAY 57-58/

(IF NOT EVERY DAY:) #   PER MONTH 59-60/

OR

(IF NOT EVERY DAY:) #   PER YEAR 61-62/

A. When was that?

FROM

-    
MONTH YEAR 63-66/

TO

-    
MONTH YEAR 67-70/

63-37. SHOW PARTICIPANT HAND CARD T. When you smoked a cigar, how deeply did you usually inhale?  
Would you say:

As deeply into the chest as possible .....	1	71/
Only partly into the chest .....	2	
As far back as the throat .....	3	
Well back into the mouth, or .....	4	
Just puff and don't really draw it in at all .....	5	
DON'T KNOW .....	8	

63-38. DOES R CURRENTLY HAVE A SPOUSE OR PARTNER? IS ANY "NO" CODED IN SECTION E: Q.2, PAGE E-3; Q.6C, PAGE E-10; OR Q.8C, PAGE E-14.

YES .....	1	72/
NO ..... (SKIP TO Q.63-40, BELOW) .....	2	

63-39. Does your (spouse/partner) smoke regularly any of the following? Does she smoke . . . ?

	YES	NO	DON'T KNOW	
Cigarettes	1	2	8	73/
Cigars	1	2	8	74/
Pipe	1	2	8	75/

63-40. Approximately how much smoke is there in the air in your home?

A lot .....	1	76/
A little .....	2	
NONE ..... (SKIP TO Q.63-42, PAGE H-41) .....	3	

63-41. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke in your home?

10 hours or less .....	1	77/
11 to 15 hours .....	2	
16 to 20 hours .....	3	
21 to 25 hours .....	4	
26 or more hours .....	5	

63-42. DOES R WORK? IS "YES" CODED AT SECTION B, Q.4, PAGE B-5 OR "CURRENT JOB" CODED AT SECTION C. Q.1F, PAGE C-2?

YES .....	1	BEGIN DECK 55 10/
NO .....	(SKIP TO Q.64, PAGE H-43)	2

A. Approximately how much smoke is there in the air in the transportation you take to and from work for example, your car, the train, the bus, etc.?

A lot .....	1	11/
A little .....	2	
NONE .....	(SKIP TO Q.63-44, BELOW)	3

63-43. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke?

10 hours or less .....	1	12/
11 to 15 hours .....	2	
16 to 20 hours .....	3	
21 to 25 hours .....	4	
26 or more hours .....	5	13-14/R

63-44. Approximately how much smoke is there in the air where you work?

A lot .....	1	15/
A little .....	2	
NONE .....	(SKIP TO Q.64, PAGE H-43)	3

63-45. SHOW PARTICIPANT HAND CARD V. Approximately how many hours a week are you exposed to this smoke?

10 hours or less .....	1	16/
11 to 15 hours .....	2	
16 to 20 hours .....	3	
21 to 25 hours .....	4	
26 or more hours .....	5	



64. **ASK ALL RESPONDENTS.** Have you been arrested for a felony since (DATE OF LAST INTERVIEW)?

YES ..... 1 21/

NO ..... (SKIP TO Q.65, PAGE H-44) ..... 2

64A. Have you ever been convicted of a felony since (DATE OF LAST INTERVIEW)?

YES ..... 1 22/

NO ..... (SKIP TO Q.65, PAGE H-44) ..... 2

64B. How many felonies have you been convicted of?

ENTER NUMBER:   23-24/

64C. What month and year were you convicted of (this/your first) felony?

-    
MONTH YEAR 25-28/

64D. On what charge wre you convicted?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ 29-30/

64E. HAS R EVER BEEN CONVICTED OF A SECOND FELONY? IS # IN Q.64B EQUAL TO 2 OR MORE?

YES ..... 1 31/

NO ..... (SKIP TO Q.65, PAGE H-44) ..... 2

64F. What month and year were you convicted of this second felony?

MONTH YEAR 32-35/

64G. On what charge were you convicted?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ 36-37/

64H. HAS R EVER BEEN CONVICTED OF A THIRD FELONY? IS # IN Q.64B EQUAL TO 3 OR MORE?

YES ..... (GO TO NEW QUEX) ..... 1 38/

NO ..... 2

65. Next, I'd like some information about drinking alcoholic beverages. Have you had any alcoholic beverages, including beer, wine, or liquor, since (DATE OF LAST INTERVIEW)?

YES ..... 1 39/  
NO ..... (SKIP TO LIFETIME DRINKING  
HISTORY SECTION, PAGE H-52) ... 2

66. Since (DATE OF LAST INTERVIEW) have you had a drink of beer?

YES ..... 1 40/  
NO ..... (SKIP TO Q.72, PAGE H-46) ..... 2

67. SHOW PARTICIPANT HAND CARD Z. How long has it been since your last drink of beer?

Today ..... 01 41-42/  
1-7 days ago ..... 02  
8-14 days ago ..... 03  
15-30 days ago ..... 04  
1 month ago ..... 05  
2-3 months ago ..... 06  
4-6 months ago ..... 07  
7-12 months ago ..... 08  
More than 1 year ago ..... 09

68. As you think back over the period of time between (DATE OF LAST INTERVIEW) and now, about how many cans or bottles of beer would you drink on a typical day when you drank beer?

ENTER NUMBER OF CANS OR BOTTLES:

43-44/

69. SHOW PARTICIPANT HAND CARD AA. Again, thinking back over the period of time between (DATE OF LAST INTERVIEW) and now, about how regularly did you drink beer? PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

Most often than once a day .....	01	45-46/
Every day .....	02	
5 or 6 days a week .....	03	
3 or 4 days a week .....	04	
1 or 2 days a week .....	05	
Less often than once a week .....	06	
DON'T KNOW .....	98	

70. SHOW PARTICIPANT HAND CARD BB. How large were the cans or bottles that you usually drank?

Standard 12 oz. cans or bottles .....	1	47/
16 oz. (half quart) cans or bottles .....	2	
32 oz. (full quart) cans or bottles .....	3	
Less than 12 oz. cans or bottles .....	4	
More than 32 oz. cans or bottles .....	5	
Don't drink cans or bottles of beer .....	6	

71. SHOW PARTICIPANT HAND CARD CC. During the last 12 months that you drank since (DATE OF LAST INTERVIEW), how often did you have 8 or more cans of beer in a single day, that means 3 quarts or more?

Every day or nearly every day .....	01	48-49/
3-4 times a week .....	02	
Once or twice a week .....	03	
1-3 times a month .....	04	
7-11 times a year .....	05	
3-6 times a year .....	06	
Once or twice a year .....	07	
Never .....	08	

72. Since (DATE OF LAST INTERVIEW) have you had a drink of wine?

Yes ..... 1 50/  
No ..... (SKIP TO Q.77, PAGE H-47) ..... 2

73. SHOW PARTICIPANT HAND CARD Z. How long has it been since your last drink of wine?

Today ..... 01 51-52/  
1-7 days ago ..... 02  
8-14 days ago ..... 03  
15-30 days ago ..... 04  
1 month ago ..... 05  
2-3 months ago ..... 06  
4-6 months ago ..... 07  
7-12 months ago ..... 08  
More than 1 year ago ..... 09

74. As you think back over the period of time between (DATE OF LAST INTERVIEW) and now, about how many glasses/bottles of wine would you drink on a typical day when you drank wine?

3 or more bottles ..... 1 53/  
2 bottles ..... 2  
About 1 bottle (7 - 8 wine glasses) ..... 3  
5 - 6 wine glasses (3 water glasses) ..... 4  
3 - 4 wine glasses (2 water glasses) ..... 5  
1 - 2 wine glasses (1 water glass) ..... 6 54/R

75. SHOW PARTICIPANT HAND CARD AA. Again, thinking back over the period of time between (DATE OF LAST INTERVIEW) and now, about how regularly did you drink wine? PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

More often than once a day .....	1	55/
Every day .....	2	
5 or 6 days a week .....	3	
3 or 4 days a week .....	4	
1 or 2 days a week .....	5	
Less often than once a week .....	6	
IF CANNOT DECIDE: DON'T KNOW .....	8	

76. SHOW PARTICIPANT HAND CARD CC. During the last 12 months that you drank since (DATE OF LAST INTERVIEW), how often did you have 8 or more glasses of wine in a single day (more than a fifth)?

Every day or nearly every day .....	01	56-57/
3-4 times a week .....	02	
Once or twice a week .....	03	
1-3 times a month .....	04	
7-11 times a year .....	05	
3-6 times a year .....	06	
Once or twice a year .....	07	
Never .....	08	

77. Since (DATE OF LAST INTERVIEW) have you had a drink containing liquor, such as whiskey, vodka, gin, brandy, etc.?

YES .....	1	58/
NO ..... (SKIP TO Q.83, PAGE H-49) .....	2	

## 78. SHOW PARTICIPANT HAND CARD Z. How long has it been since your last drink of hard liquor?

Today .....	01	59-60/
1-7 days ago .....	02	
8-14 days ago .....	03	
15-30 days ago .....	04	
1 month ago .....	05	
2-3 months ago .....	06	
4-6 months ago .....	07	
7-12 months ago .....	08	
More than 1 year ago .....	09	

## 79. As you think back over the period of time between (DATE OF LAST INTERVIEW) and now, about how many drinks of hard liquor would you drink on a typical day in which you drank hard liquor? 1 BOTTLE = 17 DRINKS

ENTER NUMBER OF DRINKS:   61-62/

## 80. SHOW PARTICIPANT HAND CARD AA. Again, thinking back over the period of time between (DATE OF LAST INTERVIEW) and now, about how regularly did you drink hard liquor? PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

More often than once a day .....	1	63/
Every day .....	2	
5 or 6 days a week .....	3	
3 or 4 days a week .....	4	
1 or 2 days a week .....	5	
Less often than once a week .....	6	
DON'T KNOW .....	8	

81. SHOW PARTICIPANT HAND CARD DD. About how many ounces of hard liquor are there in the drinks that you usually drink?

One ounce (one shot) .....	1	64/
1.5 ounces (one jigger) .....	2	
2 ounces (2 shots) .....	3	
3 ounces (2 jiggers or 3 shots) .....	4	
4 ounces (4 shots) .....	5	
5 or more ounces (3 or more jiggers) .....	6	
Don't know .....	8	

82. SHOW PARTICIPANT HAND CARD CC. During the last 12 months that you drank since (DATE OF LAST INTERVIEW), how often did you have 8 or more drinks of hard liquor in a single day, that is a half pint or more?

Every day or nearly every day .....	01	65-66/
3-4 times a week .....	02	
Once or twice a week .....	03	
1-3 times a month .....	04	
7-11 times a year .....	05	
3-6 times a year .....	06	
Once or twice a year .....	07	
Never .....	08	

83. Have you had a drink of beer, wine or hard liquor in the last 12 months?

Yes .....	1	67/
NO .....	(SKIP TO LIFETIME DRINKING HISTORY SECTION, PAGE H-52) ...	2

84. SHOW PARTICIPANT HAND CARD EE. About how often during the past 12 months did you drink enough to feel high -- (that is, happier or more carefree than usual, maybe a little flushed or dizzy,) but not drunk, for more than 24 hours in a row, that is, for more than one full day?

5 or more times .....	01	68-69/
4 times .....	02	
3 times .....	03	
2 times .....	04	
Once .....	05	
Never in the past year, but sometime before that .....	06	
Never in my life .....	07	

85. Now I would like to ask you some questions about experiences that many people have had with drinking.  
During the past year . . .

	YES	NO	
A. Have you felt aggressive or angry while drinking? .....	1	2	70/
B. Have you gotten into a heated argument while drinking? .....	1	2	71/
C. Have you gotten into a fight while drinking? .....	1	2	72/
D. Have you deliberately tried to cut down or quit drinking, but didn't manage to do so? .....	1	2	73/
E. Were you afraid you might be an alcoholic or that you might become one? .....	1	2	74/
F. Once you started drinking, was it difficult for you to stop before you became completely intoxicated? .....	1	2	75/
G. Have you awakened the next day not being able to remember things you had done while drinking? .....	1	2	76/
H. Have you often taken a drink the first thing when you got up in the morning? .....	1	2	77/
I. Have your hands shaken a lot the morning after drinking? .....	1	2	78/
J. Have you sometimes gotten drunk when drinking by yourself? ..	1	2	79/
K. Have you sometimes kept on drinking after promising yourself not to? .....	1	2	80/



86. HAS R WORKED THE PAST YEAR?

YES .....	1	10/
NO ..... (SKIP TO Q.87, BELOW) .....	2	

During the past year:

	YES	NO	
A. Have you stayed away from work because of a hangover? .....	1	2	11/
B. Have you gotten drunk when on the job? .....	1	2	12/
C. Have you lost a job, or nearly lost one, because of drinking? ....	1	2	13/
D. Has drinking led to your quitting a job? .....	1	2	14/
E. Has drinking hurt your chances for promotion or raises or a better job? .....	1	2	15/

87. When you were growing up, do you think your father drank occasionally, drank frequently, had a drinking problem, or didn't he drink?

Drank occasionally .....	1	16/
Drank frequently .....	2	
Had a drinking problem .....	3	
Didn't drink .....	4	
DON'T KNOW .....	8	

88. When you were growing up, do you think your mother drank occasionally, drank frequently, had a drinking problem, or didn't she drink?

Drank occasionally .....	1	17/
Drank frequently .....	2	
Had a drinking problem .....	3	
Didn't drink .....	4	
DON'T KNOW .....	8	

**LIFETIME DRINKING HISTORY SECTION**

USE THESE DIRECTIONS TO COMPLETE THE ANSWER SHEET FOR LIFETIME DRINKING HISTORY. IF PARTICIPANT WAS LAST INTERVIEWED IN 1987/1988, USE DATE OF LAST INTERVIEW. OTHERWISE, ASK ABOUT TIME SINCE BEGAN DRINKING REGULARLY.

Now I am going to ask you questions about your drinking history. I'd like to start with [the year that you first began drinking regularly (i.e., at least once a month / the period since (DATE OF LAST INTERVIEW)), and work forward to the present. Please give me information as accurately as you can about what type of beverage you were drinking, how much and how often.

**(FIRST) STAGE**

Question A H 1.1 To begin I'm going to ask you about your drinking pattern [during the first year that you began to have at least one drink per month/since (DATE OF LAST INTERVIEW)]. [How old were you when you began regular drinking . . . approximately how old? / How old were you at the time of the last interview?] RECORD THE AGE ON THE ANSWER SHEET

**TYPE**

Question A H 1.2 [During the first year that you began to have at least one drink per month / Since (DATE OF LAST INTERVIEW)], what types of beverages would you usually consume in an average month? About what percentage of your drinking would be . . .? RECORD THE RELATIVE PERCENTAGES OF BEER, HARD LIQUOR OR WINE.  
THIS SECTION SHOULD ADD UP TO 100%

**QUANTITY**

Question A H 1.3 When you drank about how much did you usually drink?

One drink (approximately) = 12 oz Beer  
One drink (approximately) = 1.5 oz Liquor (40 % Alcohol)  
One drink (approximately) = 5 oz Wine  
One drink (approximately) = 3 oz Fortified Wine (e.g., Sherry)  
One drink (approximately) = 17 ml Absolute Alcohol  
One drink (approximately) = 13.6 g Absolute Alcohol

RECORD THE AVERAGE NUMBER OF DRINKS PER OCCASION

Question A H 1.4 What is the most or maximum number of drinks you would have in any one day? RECORD THE MAXIMUM NUMBER OF DRINKS. NOTE, THIS IS THE MAXIMUM NUMBER THAT THE PERSON ACTUALLY WOULD DRINK, NOT AN ESTIMATE OF HIS POTENTIAL CAPACITY.

**FREQUENCY**

Question A H 1.5 How many days per month would you generally drink (AVERAGE NUMBER OF DRINKS FROM A H 1.3.)? RECORD THE NUMBER OF DAYS UNDER THE FREQUENCY HEADING.

## LIFETIME DRINKING HISTORY SECTION

USE THESE DIRECTIONS TO COMPLETE THE ANSWER SHEET FOR LIFETIME DRINKING HISTORY. IF PARTICIPANT WAS LAST INTERVIEWED IN 1987/1988, USE DATE OF LAST INTERVIEW. OTHERWISE, ASK ABOUT TIME SINCE BEGAN DRINKING REGULARLY.

Now I am going to ask you questions about your drinking history. I'd like to start with [the year that you first began drinking regularly (i.e., at least once a month / the period since (DATE OF LAST INTERVIEW)), and work forward to the present. Please give me information as accurately as you can about what type of beverage you were drinking, how much and how often.

### (FIRST) STAGE

Question A H 1.1 To begin I'm going to ask you about your drinking pattern [during the first year that you began to have at least one drink per month/since (DATE OF LAST INTERVIEW)]. [How old were you when you began regular drinking . . . approximately how old? / How old were you at the time of the last interview?] RECORD THE AGE ON THE ANSWER SHEET.

---

### TYPE

Question A H 1.2 [During the first year that you began to have at least one drink per month / Since (DATE OF LAST INTERVIEW)], what types of beverages would you usually consume in an average month? About what percentage of your drinking would be . . . ? RECORD THE RELATIVE PERCENTAGES OF BEER, HARD LIQUOR OR WINE. THIS SECTION SHOULD ADD UP TO 100%

---

### QUANTITY

Question A H 1.3 When you drank about how much did you usually drink?

One drink (approximately) = 12 oz Beer  
One drink (approximately) = 1.5 oz Liquor (40 % Alcohol)  
One drink (approximately) = 5 oz Wine  
One drink (approximately) = 3 oz Fortified Wine (e.g., Sherry)  
One drink (approximately) = 17 ml Absolute Alcohol  
One drink (approximately) = 13.6 g Absolute Alcohol

RECORD THE AVERAGE NUMBER OF DRINKS PER OCCASION

Question A H 1.4 What is the most or maximum number of drinks you would have in any one day? RECORD THE MAXIMUM NUMBER OF DRINKS. NOTE, THIS IS THE MAXIMUM NUMBER THAT THE PERSON ACTUALLY WOULD DRINK, NOT AN ESTIMATE OF HIS POTENTIAL CAPACITY.

---

### FREQUENCY

Question A H 1.5 How many days per month would you generally drink (AVERAGE NUMBER OF DRINKS FROM A H 1.3.)? RECORD THE NUMBER OF DAYS UNDER THE FREQUENCY HEADING.

---

STYLE

Question A H 1.6 How would you rate your usual style of drinking in an average month? Was it . . .?  
(READ APPROPRIATE CATEGORIES. CIRCLE ONE).

- BLANK = ABSTINENT  
1 = Occasional (LESS THAN 15 DAYS).  
2 = Weekends mainly.  
3 = At least 3 days heavy drinking in a period of time (BINGE  
DRINKING)  
4 = Frequent (15 OR MORE DRINKS PER MONTH).
- 

LIFE EVENTS

Question A H 1.7 Did any important event or events occur during this period that altered your usual drinking habits? EXAMPLES ARE: LOSS OF SPOUSE, MEDICAL PROBLEMS, UNEMPLOYMENT, PRISON TERM, HOSPITALIZATION. RECORD THESE EVENTS BY CODING ALL THAT APPLY. IF NO IMPORTANT EVENT OCCURRED THAT INFLUENCED THE PERSON'S DRINKING BEHAVIOR, THEN LEAVE THIS SECTION BLANK

---

Question A H 1.8 What was your perception of this event? Would you say that it had a positive (+) or negative (-) effect on your life? RECORD "+" OR "-" BEFORE THE LIFE EVENT. IF NO (NEUTRAL) EFFECT, LEAVE BLANK.

---

CONTEXT

Question A H 1.9a What percentage of the time would you drink alone?  
Question A H 1.9b What percentage of the time with at least one other person?  
(RECORD THE APPROPRIATE VALUES BESIDE ALONE AND WITH OTHERS. THIS SECTION SHOULD ADD UP TO 100%)

---

TIME

Question A H 1.10 During what time of the day would you do most of your drinking? Could you give me the percentage of time during the evening, afternoon and morning?  
(RECORD THE APPROPRIATE VALUES BESIDE MORNING, AFTERNOON AND EVENING. THIS SECTION SHOULD ADD TO 100%)

---

## SUBSEQUENT PHASES

Instruction A: We have just discussed your drinking habits [at the point when you first began to drink regularly/since (DATE OF LAST INTERVIEW)]. Now I want you to think of when your drinking behavior was different in a significant way from this time. This could be the next 6 months or perhaps 2 or 5 years. Can you think of any events in your life that changed and may have altered your drinking habits (increased/decreased) at any time in your life? Events such as attending high school, college, enlisting, Vietnam, deaths in family, change of jobs.

ESTABLISH WHEN THE PERSON'S DRINKING BEHAVIOR FIRST CHANGED IN A SIGNIFICANT WAY FROM THAT RECORDED UNDER FIRST STAGE. SINCE THIS DRINKING HISTORY IS AIMED AT MAJOR TRENDS, SOME JUDGEMENT WILL BE NECESSARY IN DIFFERENTIATING IMPORTANT FROM MINOR CHANGES IN DRINKING PATTERNS. FILL IN THE AGE RANGE WHEN THE BEHAVIOR CHANGED UNDER SECOND STAGE, AND REPEAT THE QUESTIONS FOR TYPE, QUANTITY, FREQUENCY, STYLE, LIFE EVENTS, CONTEXT, AND TIME.

Instruction B: PROBE FURTHER INTO THE PERSON'S HISTORY TO NOTE CHANGES IN DRINKING BEHAVIOR. MAKE SURE THAT ALL THE YEARS ARE COVERED FROM THE YEAR WHEN THE INDIVIDUAL FIRST STARTED DRINKING ON A REGULAR BASIS (AT LEAST ONCE A MONTH) TO HIS PRESENT AGE OR FROM THE DATE OF LAST INTERVIEW TO NOW. AFTER CONDUCTING THE INTERVIEW, CARE SHOULD BE TAKEN TO ENSURE THAT ALL SECTIONS ARE COMPLETE AND THAT THE AGE RANGE RUNS IN A CHRONOLOGICAL SEQUENCE WITH NO OVERLAP OR AGE GAPS.

EXAMPLE: Participant started drinking at 16. He drank very little for 4 years.

At age 20, he drank a lot more, and more liquor than beer. He did this for 10 years.

At age 30, he decreased his drinking to only weekends. He did this type of drinking for 12 years.

At age 42, he quit drinking completely. He is 50 years old.

FIRST STAGE: From age 16 to 20.

SECOND STAGE: From age 20 to 30.

THIRD STAGE: From age 30 to 42.

FOURTH STAGE: From age 42 to present (50 yrs).

---

STYLE

Question A H 1.6 How would you rate your usual style of drinking in an average month? Was it . . . ? (READ APPROPRIATE CATEGORIES. CIRCLE ONE).

- BLANK = ABSTINENT  
1 = Occasional (LESS THAN 15 DAYS).  
2 = Weekends mainly.  
3 = At least 3 days heavy drinking in a period of time (BINGE DRINKING)  
4 = Frequent (15 OR MORE DRINKS PER MONTH).
- 

LIFE EVENTS

Question A H 1.7 Did any important event or events occur during this period that altered your usual drinking habits? EXAMPLES ARE: LOSS OF SPOUSE, MEDICAL PROBLEMS, UNEMPLOYMENT, PRISON TERM, HOSPITALIZATION. RECORD THESE EVENTS BY CODING ALL THAT APPLY. IF NO IMPORTANT EVENT OCCURRED THAT INFLUENCED THE PERSON'S DRINKING BEHAVIOR, THEN LEAVE THIS SECTION BLANK

---

Question A H 1.8 Deleted SEE GREEN CARDS

---

CONTEXT

Question A H 1.9a What percentage of the time would you drink alone?

Question A H 1.9b What percentage of the time with at least one other person?

(RECORD THE APPROPRIATE VALUES BESIDE ALONE AND WITH OTHERS. THIS SECTION SHOULD ADD UP TO 100%)

---

TIME

Question A H 1.10 During what time of the day would you do most of your drinking? Could you give me the percentage of time during the evening, afternoon and morning? (RECORD THE APPROPRIATE VALUES BESIDE MORNING, AFTERNOON AND EVENING. THIS SECTION SHOULD ADD TO 100%)

---

SUBSEQUENT PHASES

Instruction A: We have just discussed your drinking habits [at the point when you first began to drink regularly/since (DATE OF LAST INTERVIEW)]. Now I want you to think of when your drinking behavior was different in a significant way from this time. This could be the next 6 months or perhaps 2 or 5 years. Can you think of any events in your life that changed and may have altered your drinking habits (increased/decreased) at any time in your life? Events such as attending high school, college, enlisting, Vietnam, deaths in family, change of jobs.

ESTABLISH WHEN THE PERSON'S DRINKING BEHAVIOR FIRST CHANGED IN A SIGNIFICANT WAY FROM THAT RECORDED UNDER FIRST STAGE. SINCE THIS DRINKING HISTORY IS AIMED AT MAJOR TRENDS, SOME JUDGEMENT WILL BE NECESSARY IN DIFFERENTIATING IMPORTANT FROM MINOR CHANGES IN DRINKING PATTERNS. FILL IN THE AGE RANGE WHEN THE BEHAVIOR CHANGED UNDER SECOND STAGE, AND REPEAT THE QUESTIONS FOR TYPE, QUANTITY, FREQUENCY, STYLE, LIFE EVENTS, CONTEXT, AND TIME.

**Instruction B:** PROBE FURTHER INTO THE PERSON'S HISTORY TO NOTE CHANGES IN DRINKING BEHAVIOR. MAKE SURE THAT ALL THE YEARS ARE COVERED FROM THE YEAR WHEN THE INDIVIDUAL FIRST STARTED DRINKING ON A REGULAR BASIS (AT LEAST ONCE A MONTH) TO HIS PRESENT AGE OR FROM THE DATE OF LAST INTERVIEW TO NOW. AFTER CONDUCTING THE INTERVIEW, CARE SHOULD BE TAKEN TO ENSURE THAT ALL SECTIONS ARE COMPLETE AND THAT THE AGE RANGE RUNS IN A CHRONOLOGICAL SEQUENCE WITH NO OVERLAP OR AGE GAPS.

**EXAMPLE:** Participant started drinking at 16. He drank very little for 4 years.

At age 20, he drank a lot more, and more liquor than beer. He did this for 10 years.

At age 30, he decreased his drinking to only weekends. He did this type of drinking for 12 years.

At age 42, he quit drinking completely. He is 50 years old.

**FIRST STAGE:** From age 16 to 20.

**SECOND STAGE:** From age 20 to 30.

**THIRD STAGE:** From age 30 to 42.

**FOURTH STAGE:** From age 42 to present (50 yrs).

ANSWER SHEET  
LIFETIME DRINKING HISTORY

Q.AH1.1 STAGES AGE RANGE	Q.AH1.2 TYPE	Q.AH1.3/Q.AH1.4 QUANTITY	Q.AH1.5 FREQUENCY	Q.AH1.6 STYLE	Q.AH1.7 LIFE EVENTS OR CHANGES	Q.AH1.9 a & b CONTEXT	Q.AH1.10 TIME
Younger to Older	Percentage %	Drinks/Occasion	Days/Month	Circle One	Code All That Apply	Percentage %	Percentage %
BEGIN DECK 57							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	46-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
					5 Residence	T = 100%	Evening
					6 Legal-Jail		T = 100%
					34-39/		58-60/
BEGIN DECK 58							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	46-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
					5 Residence	T = 100%	Evening
					6 Legal-Jail		58-60/
					34-39/		T = 100%
BEGIN DECK 59							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	46-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
					5 Residence	T = 100%	Evening
					6 Legal-Jail		58-60/
					34-39/		T = 100%

1mo = .1 5mo = .4 9mo = .8  
 2mo = .2 6mo = .5 10mo = .8  
 3mo = .3 7mo = .6 11mo = .9  
 4mo = .3 8mo = .7 12mo = 1.0

1 Drink (approx.) = 12 oz. beer  
 1.5 oz. liquor  
 5 oz. wine  
 3 oz. fortified wine  
 13.6 g absolute alcohol

Liquor: 1 mickey (12 oz) = 8 Drinks  
 1 bottle (25 oz) = 17 Drinks  
 Wine: 1 bottle (25 oz) = 5 Drinks  
 4 bottles = 20 Drinks



ANSWER SHEET  
LIFETIME DRINKING HISTORY

Q.AH1.1 STAGES AGE RANGE	Q.AH1.2 TYPE	Q.AH1.3/Q.AH1.4 QUANTITY	Q.AH1.5 FREQUENCY	Q.AH1.6 STYLE	Q.AH1.7 LIFE EVENTS OR CHANGES	Q.AH1.9 a & b CONTEXT	Q.AH1.10 TIME
Younger to Older	Percentage %	Drinks/occasion	Days/Month	Circle One	Code All That Apply	Percentage %	Percentage %
BEGIN DECK 60							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	48-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
				33/	5 Residence	T = 100%	Evening
					6 Legal-Jail		58-60/
					34-39/		T = 100%
					40-45/		
BEGIN DECK 61							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	48-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
				33/	5 Residence	T = 100%	Evening
					6 Legal-Jail		58-60/
					34-39/		T = 100%
					40-45/		
BEGIN DECK 62							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	31-32/	2. Weekends	2 Work	48-48/	52-54/
	Wine			3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%			4. Frequent	4 Medical	49-51/	55-57/
				33/	5 Residence	T = 100%	Evening
					6 Legal-Jail		58-60/
					34-39/		T = 100%
					40-45/		

Liquor: 1 mickey (12 oz) = 8 Drinks  
1 bottle (25 oz) = 17 Drinks  
Wine: 1 bottle (25 oz) = 5 Drinks  
1 bottle fortified = 8 Drinks

1 Drink (approx.) = 12 oz. beer  
1.5 oz. liquor  
5 oz. wine  
3 oz. fortified wine  
13.6 g absolute alcohol

1mo = .1 5mo = .4 9mo = .8  
2mo = .2 6mo = .5 10mo = .8  
3mo = .3 7mo = .6 11mo = .9  
4mo = .3 8mo = .7 12mo = 1.0

Q.AH1.1 STAGES AGE RANGE	Q.AH1.2 TYPE	Q.AH1.3/Q.AH1.4 QUANTITY	Q.AH1.5 FREQUENCY	Q.AH1.6 STYLE	Q.AH1.7 LIFE EVENTS OR CHANGES	Q.AH1.9 a & b CONTEXT	Q.AH1.10 TIME
Younger to Older	Percentage %	Drinks/Occasion	Days/Month	Circle One	Code All That Apply	Percentage %	Percentage %
BEGIN DECK 63							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	27-28/	2. Weekends	2 Work	48-48/	52-54/
	Wine		21-23/	3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%		29-30/	4. Frequent	4 Medical	49-51/	55-57/
					5 Residence	T = 100%	58-60/
					6 Legal-Jail		T = 100%
					7 Financial		
					8 Peer Group		
					9 Drug Use		
					10 Treatment		
					11 Death		
					12 Emotional		
					34-39/		
					40-45/		
BEGIN DECK 64							
FROM	Beer	(1.3) Average		1. Occasional	1 Family	a. Alone	Morning
TO	Liquor	(1.4) Maximum	27-28/	2. Weekends	2 Work	48-48/	52-54/
	Wine		21-23/	3. Heavy/Binge	3 School	b. With Others	Afternoon
	T = 100%		29-30/	4. Frequent	4 Medical	49-51/	55-57/
					5 Residence	T = 100%	58-60/
					6 Legal-Jail		T = 100%
					7 Financial		
					8 Peer Group		
					9 Drug Use		
					10 Treatment		
					11 Death		
					12 Emotional		
					34-39/		
					40-45/		

1 Drink (approx.) = 12 oz. beer  
1.5 oz. liquor  
5 oz. wine  
3 oz. fortified wine  
13.6 g absolute alcohol

Liquor: 1 mickey (12 oz) = 8 Drinks  
1 bottle (25 oz) = 17 Drinks

Wine: 1 bottle (25 oz) = 5 Drinks  
1 bottle fortified = 8 Drinks

89. IF R INTERVIEWED IN CYCLES '85-'86 AND/OR '87-'88, USE THE PHRASES IN BRACKETS. Now I am going to ask you some questions about using alcohol. [Since (DATE OF LAST INTERVIEW)], Has there ever been a period of two weeks when every day you were drinking 7 or more beers, 7 or more drinks of hard liquor or 7 or more glasses of wine?

YES ..... (ASK Q.89A) ..... 1 10/  
NO ..... (SKIP TO Q.90) ..... 2

89A. How long has it been since you drank that much or do you still?  
CODE MOST RECENT TIME POSSIBLE

Still or within last 2 weeks ..... 1 11/  
Within last month ..... 2  
Within last 6 months ..... 3  
Within last year ..... 4  
More than 1 year ago ..... 5

90. [As you think back over the period of time between (DATE OF LAST INTERVIEW) and now], Has there ever been a couple of months or more when at least one evening a week, you drank 7 drinks, or 7 bottles of beer or 7 glasses of wine?

YES ..... (ASK Q.90A) ..... 1 12/  
NO ..... (SKIP TO Q.91, PAGE H-56) ..... 2

90A. How long has it been since you drank 7 or more drinks at least once a week, or do you still?  
CODE MOST RECENT TIME POSSIBLE

Still or within last 2 weeks ..... 1 13/  
Within last month ..... 2  
Within last 6 months ..... 3  
Within last year ..... 4  
More than 1 year ago. .... (ASK Q.90B) ..... 5

90B. IF MORE THAN 1 YEAR AGO: How old were you then?

AGE

14-15/

B-205

May 15, 1992

17:06 pm

Field Version 1.1

91. [Since (DATE OF LAST INTERVIEW)]/Have you ever told a doctor about a problem you had with drinking?

YES ..... 1 16/

NO ..... 2

92. [Since (DATE OF LAST INTERVIEW)]/Have friends, your doctor, your clergyman, or any other professional ever said you were drinking too much for your own good?

YES ..... 1 17/

NO ..... 2

93. [Again, thinking back over the period of time between (DATE OF LAST INTERVIEW) and now]/Have you ever wanted to stop drinking but couldn't?

YES ..... 1 18/

NO ..... 2

94. Some people promise themselves not to drink before 5 o'clock or never to drink alone, in order to control their drinking. [Since (DATE OF LAST INTERVIEW)]/Have you ever done anything like that?

YES ..... 1 19/

NO ..... 2

95. [Since (DATE OF LAST INTERVIEW)]/Did you ever need a drink just after you had gotten up (that is, before breakfast)?

YES ..... 1 20/

NO ..... 2

96. [Over the period of time since (DATE OF LAST INTERVIEW) and now]/Have you ever had job or school troubles because of drinking -- like missing too much work or drinking on the job or at school?

YES ..... 1 21/

NO ..... 2

97. [Since (DATE OF LAST INTERVIEW)]/Did you ever lose a job or get kicked out of school on account of drinking?

YES ..... 1 22/

NO ..... 2

98. [As you think back over the period of time between (DATE OF LAST INTERVIEW) and now]/Have you ever gotten into trouble driving because of drinking -- like having an accident or being arrested for drunk driving?

YES ..... 1 23/

NO ..... 2

99. [Since (DATE OF LAST INTERVIEW)]/Have you ever been arrested or held at the police station because of drinking or for disturbing the peace while drinking?

YES ..... 1 24/

NO ..... 2

100. [Since (DATE OF LAST INTERVIEW)]/Have you ever gotten into physical fights while drinking?

YES ..... 1 25/

NO ..... 2

101. [As you think back over the period of time between (DATE OF LAST INTERVIEW) and now]/Have you ever gone on binges or benders, where you kept drinking for a couple of days or more without sobering up?

YES ..... (ASK Q.101A AND Q.101B) ..... 1 26/

NO ..... (SKIP TO Q.102, NEXT PAGE) ..... 2

101A. Did you neglect some of your usual responsibilities then?

YES ..... 1 27/

NO ..... 2

101B. How many times have you gone on binges or benders that lasted at least a couple of days?

28-29/

# OF BENDERS

IF R SAYS 96 OR MORE, CODE 96 AND GO TO Q.102, NEXT PAGE. IF R SAYS "DON'T KNOW" ASK Q.101C.

101C. Was it just once or more often than that?

JUST ONCE ..... (RECORD 01 ABOVE)

MORE THAN ONCE (RECORD 95 ABOVE)

STILL DON'T KNOW (RECORD 98 ABOVE)

102. [Since (DATE OF LAST INTERVIEW)]/Have you ever had blackouts while drinking, that is, where you drank enough so that you couldn't remember the next day what you had said or done?

YES ..... 1 30/

NO ..... 2

103. [Since (DATE OF LAST INTERVIEW)]/Have you ever had "the shakes" after stopping or cutting down on drinking (for example, your hands shake so that your coffee rattles in the saucer or you have trouble lighting a cigarette)?

YES ..... (SKIP TO Q.104) ..... 1 31/

NO ..... (ASK Q.103A) ..... 2

103A. [Since (DATE OF LAST INTERVIEW)]/Have you ever had fits or seizures after stopping or cutting down on drinking?

YES ..... (SKIP TO Q.104) ..... 1 32/

NO ..... (ASK Q.103B) ..... 2

103B. [Since (DATE OF LAST INTERVIEW)]/Have you ever had the DT's (hallucinations and fever) when you quit drinking?

YES ..... (SKIP TO Q.104) ..... 1 33/

NO ..... (ASK Q.103C) ..... 2

103C. [Since (DATE OF LAST INTERVIEW)]/Have you ever seen or heard things that weren't really there after cutting down on drinking?

YES ..... 1 34/

NO ..... 2

104. There are several health problems that can result form long stretches of pretty heavy drinking. [Since (DATE OF LAST INTERVIEW)]/Did drinking ever cause you to have ...? CODE ALL THAT APPLY.

A. liver disease or yellow jaundice ..... 1 35/

B. vomiting blood or other stomach troubles ..... 2 36/

C. trouble with tingling in the limbs ..... 3 37/

D. memory troubles when you haven't been drinking (not blackouts) ..... 4 38/

E. inflammation of yoiur pancreas or pancreatitis ..... 5 39/

F. NONE ..... 0

105. [During the period from (DATE OF LAST INTERVIEW) and now]/Have you ever continued to drink when you knew you had a serious physical illness that might be made worse by drinking?

YES ..... 1 40/

NO ..... 2

106. Has there ever been a period in your life [since (DATE OF LAST INTERVIEW)], when you could not do your ordinary daily work well unless you had something to drink?

YES ..... 1 41/

NO ..... 2

107A. Now I am going to ask you about possible sleep problems. SHOW PARTICIPANT HAND CARD FF.  
[Since (DATE OF LAST INTERVIEW)]/Would you please look at this card and tell me if you have any of these sleep problems. Other than on this trip, do you routinely have sleep problems such as . . .  
(READ a-l)?

B. IF YES TO ANY SLEEP PROBLEMS, ASK FOR EACH: How long have you had this problem?  
(CONVERT INTO MONTHS)

	A. CURRENT PROBLEM	B. HOW LONG IN MONTHS	C. PAST PROBLEM
a. Trouble falling asleep	1	<input type="text"/> <input type="text"/> <input type="text"/>	1 42-46/
b. Waking up during the night	2	<input type="text"/> <input type="text"/> <input type="text"/>	2 47-51/
c. Waking up too early and can't go back to sleep	3	<input type="text"/> <input type="text"/> <input type="text"/>	3 52-56/
d. Waking up unrefreshed	4	<input type="text"/> <input type="text"/> <input type="text"/>	4 57-61/
e. Involuntarily falling asleep during the day	5	<input type="text"/> <input type="text"/> <input type="text"/>	5 62-66/
f. Great or disabling fatigue during the day	6	<input type="text"/> <input type="text"/> <input type="text"/>	6 67-71/
g. Frightening dreams	7	<input type="text"/> <input type="text"/> <input type="text"/>	7 72-76/ BEGIN DECK 66
h. Talking in your sleep	8	<input type="text"/> <input type="text"/> <input type="text"/>	8 10-14/
i. Sleepwalking	9	<input type="text"/> <input type="text"/> <input type="text"/>	9 15-19/
j. Abnormal movement/activity during the night	10	<input type="text"/> <input type="text"/> <input type="text"/>	10 20-24/
k. Sleep problems requiring medication	11	<input type="text"/> <input type="text"/> <input type="text"/>	11 25-29/
l. Snore loudly in all sleeping positions	12	<input type="text"/> <input type="text"/> <input type="text"/>	12 30-34/
m. IF NO CURRENT SLEEP PROBLEMS, CODE "1" ..... 1			35/

C. IF NO TO ANY OF THESE PROBLEMS, ASK: Would you please look at this card and tell me if you have had any of these sleep problems in the past? CODE ALL THAT APPLY

IF NO PAST SLEEP PROBLEMS, CODE "1" ..... 1 36/

IF R (HAS/HAD) ANY OF THE SLEEP PROBLEMS LISTED IN Q.107 ASK QS.108-110.  
OTHERS SKIP TO Q.111, PAGE H-61.

108. SHOW PARTICIPANT HAND CARD FF. Did you consult a physician or other health care professional about (EACH SLEEP PROBLEM GIVEN IN Q.107)?

	YES	NO	
a. Trouble falling asleep	1	2	37/
b. Waking up during the night	1	2	38/
c. Waking up too early and can't go back to sleep	1	2	39/
d. Waking up unrefreshed	1	2	40/
e. Involuntarily falling asleep during the day	1	2	41/
f. Great or disabling fatigue during the day	1	2	42/
g. Frightening dreams	1	2	43/
h. Talking in your sleep	1	2	44/
i. Sleepwalking	1	2	45/
j. Abnormal movement/activity during the night	1	2	46/
k. Sleep problems requiring medication	1	2	47/
l. Snore loudly in all sleeping positions	1	2	48/

109. Did you take medication to relieve (READ EACH SLEEP PROBLEM GIVEN IN Q.107)?

	YES	NO	
a. Trouble falling asleep	1	2	49/
b. Waking up during the night	1	2	50/
c. Waking up too early and can't go back to sleep	1	2	51/
d. Waking up unrefreshed	1	2	52/
e. Involuntarily falling asleep during the day	1	2	53/
f. Great or disabling fatigue during the day	1	2	54/
g. Frightening dreams	1	2	55/
h. Talking in your sleep	1	2	56/
i. Sleepwalking	1	2	57/
j. Abnormal movement/activity during the night	1	2	58/
k. Sleep problems requiring medication	1	2	59/
l. Snore loudly in all sleeping positions	1	2	60/



110. Did (EACH SLEEP PROBLEM GIVEN IN Q.107, PAGE H-59) interfere with your life?

	YES	NO	
a. Trouble falling asleep	1	2	61/
b. Waking up during the night	1	2	62/
c. Waking up too early and can't go back to sleep	1	2	63/
d. Waking up unrefreshed	1	2	64/
e. Involuntarily falling asleep during the day	1	2	65/
f. Great or disabling fatigue during the day	1	2	66/
g. Frightening dreams	1	2	67/
h. Talking in your sleep	1	2	68/
i. Sleepwalking	1	2	69/
j. Abnormal movement/activity during the night	1	2	70/
k. Sleep problems requiring medication	1	2	71/
l. Snore loudly in all sleeping positions	1	2	72/

111. ASK THIS QUESTION FOR EVERYONE. On the average, how many hours do you sleep per night?

HOURS

73-74/

**SECTION I: RECREATION, LEISURE, AND PHYSICAL ACTIVITIES**

**FOR THIS SECTION YOU WILL NEED:**

- THE INTERVAL SUPPLEMENTAL RECORDING BOOK (I.S.R.B.)
- CALENDAR

10-17/R

1. Now we would like you to answer some questions about your leisure time activities. Have you ever participated three or more times in (READ EACH ITEM)?

	YES	NO	
Scuba diving .....	1	2	18/
Auto, boat, or motorcycle racing .....	1	2	19/
Skydiving .....	1	2	20/
Mountain climbing .....	1	2	21/
Hang gliding .....	1	2	22/
Plane racing or plane acrobatics, not including flight training or any assignments for the Armed Forces .....	1	2	23/
Surf board riding .....	1	2	24/
Sailing long distance in small sailing craft .....	1	2	25/
Skiing fast down a high mountain slope .....	1	2	26/

27/R

**SKIP TO Q.IS 62 IN I.S.R.B. ON PAGE 15.**

**SECTION J: TOXIC SUBSTANCES****FOR THIS SECTION YOU WILL NEED****- HAND CARD E**

1. Have any of the recreation, leisure, and/or physical activities you've participated in since (DATE OF LAST INTERVIEW) brought you in contact with any of the following substances ...?	1A. FOR EACH SUBSTANCE CODED YES, ASK A THROUGH D. Since (DATE OF LAST INTERVIEW), in what month and year did your recreation, leisure and/or physical activities first bring you in contact with (SUBSTANCE)?	1B. Since (DATE OF LAST INTERVIEW), for how many years did you continue to come in contact with (SUBSTANCE)?
<p style="text-align: right;">YES NO</p> <p>Asbestos? ..... 1 2 28/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">29-32/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">33-34/</p> </p>
<p>Industrial Chemicals? ..... 1 2 35/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">36-39/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">40-41/</p> </p>
<p>Insecticides or Pesticides? ..... 1 2 42/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">43-46/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">47-48/</p> </p>
<p>Degreasing Chemicals? ..... 1 2 49/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">50-53/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">54-55/</p> </p>
<p>Defoliants or Herbicides? ..... 1 2 56/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">57-60/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">61-62/</p> </p>
<p>X-ray or Nuclear Radiation? ..... 1 2 63/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  MONTH </div> <div style="display: inline-block; text-align: center; margin-left: 20px;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEAR </div> </p> <p style="text-align: right;">64-67/</p>	<p style="text-align: center;"> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div>  YEARS </div> <p style="text-align: right;">68-69/</p> </p>

## 1. (Continued)

1C. Since (DATE OF LAST INTERVIEW), how many days per year did you come in contact with (SUBSTANCE)?	1D. On the days you came in contact with (SUBSTANCE) how often did you use protective clothing or gear or wash to remove (SUBSTANCE)-- all of the time, some of the time, or never?	1E. SHOW PARTICIPANT HAND CARD E. Which of the following did you use? CODE ALL THAT APPLY.
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">70-72/</div>	<div style="text-align: right;">73/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 74/ Goggles ..... 2 75/ Face Shield ..... 3 76/ Special Clothing ..... 4 77/ Washing Facilities ..... 5 78/ Self Contained or Supplied Air Breathing Apparatus .... 6 79/ NONE ..... 0 80/
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">BEGIN DECK 68 10-12/</div>	<div style="text-align: right;">13/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 14/ Goggles ..... 2 15/ Face Shield ..... 3 16/ Special Clothing ..... 4 17/ Washing Facilities ..... 5 18/ Self Contained or Supplied Air Breathing Apparatus .... 6 19/ NONE ..... 0 20/
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">21-23/</div>	<div style="text-align: right;">24/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 25/ Goggles ..... 2 26/ Face Shield ..... 3 27/ Special Clothing ..... 4 28/ Washing Facilities ..... 5 29/ Self Contained or Supplied Air Breathing Apparatus .... 6 30/ NONE ..... 0 31/
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">32-34/</div>	<div style="text-align: right;">35/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 36/ Goggles ..... 2 37/ Face Shield ..... 3 38/ Special Clothing ..... 4 39/ Washing Facilities ..... 5 40/ Self Contained or Supplied Air Breathing Apparatus .... 6 41/ NONE ..... 0 42/
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">43-45/</div>	<div style="text-align: right;">46/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 47/ Goggles ..... 2 48/ Face Shield ..... 3 49/ Special Clothing ..... 4 50/ Washing Facilities ..... 5 51/ Self Contained or Supplied Air Breathing Apparatus .... 6 52/ NONE ..... 0 53/
<div style="text-align: center;"> <input type="text"/><input type="text"/><input type="text"/>            DAYS         </div> <div style="text-align: right;">54-56/</div>	<div style="text-align: right;">57/</div> All of the time ..(ASK E) ..... 1 Some of the time. .(ASK E) .... 2 Never ..... 3	Air Filter ..... 1 58/ Goggles ..... 2 59/ Face Shield ..... 3 60/ Special Clothing ..... 4 61/ Washing Facilities ..... 5 62/ Self Contained or Supplied Air Breathing Apparatus .... 6 63/ NONE ..... 0 64/

**SECTION K: INCOME**

**FOR THIS SECTION YOU WILL NEED**

**- HAND CARD GG.**

1. Now I have some questions about your income. SHOW PARTICIPANT HAND CARD GG. Please tell me which letter on this card best represents the total household income in 1991 before taxes or other deductions for all people in your household, not including roomers. This amount should include wages, net income from business, interest, dividends, pensions, and any other money income. Tell me the letter that comes closest.

			65/R
			66-67/
A.	\$5,000 - \$9,999 .....	01	
B.	\$10,000 - \$14,999 .....	02	
C.	\$15,000 - \$19,999 .....	03	
D.	\$20,000 - \$24,999 .....	04	
E.	\$25,000 - \$29,999 .....	05	
F.	\$30,000 - \$34,999 .....	06	
G.	\$35,000 - \$39,999 .....	07	
H.	\$40,000 - \$44,999 .....	08	
I.	\$45,000 - \$49,999 .....	09	
J.	\$50,000 - \$54,999 .....	10	
K.	\$55,000 - \$59,999 .....	11	
L.	\$60,000 - \$64,999 .....	12	
M.	\$65,000 - \$69,999 .....	13	
N.	\$70,000 - \$74,999 .....	14	
O.	\$75,000 - \$79,999 .....	15	
P.	\$80,000 - \$84,999 .....	16	
Q.	\$85,000 - \$89,999 .....	17	
R.	\$90,000 - \$94,999 .....	18	
S.	\$95,000 - \$99,999 .....	19	
T.	\$100,000 or more .....	20	

2. Did you earn any income from any job during 1991? Do not include income from retirement plans or pensions.

YES ..... (ASK Q.2A) ..... 1 68/

NO ..... (SKIP TO Q.3) ..... 2

- 2A. SHOW PARTICIPANT HAND CARD GG. In which of these groups did your earnings from jobs in 1991 fall -- that is, before taxes or other deductions? Tell me the letter that come closest. THE AMOUNT IN Q.2A SHOULD BE EQUAL TO OR LESS THAN AMOUNT IN Q.1.

A.	\$5,000 - \$9,999	01	69-70/
B.	\$10,000 - \$14,999	02	
C.	\$15,000 - \$19,999	03	
D.	\$20,000 - \$24,999	04	
E.	\$25,000 - \$29,999	05	
F.	\$30,000 - \$34,999	06	
G.	\$35,000 - \$39,999	07	
H.	\$40,000 - \$44,999	08	
I.	\$45,000 - \$49,999	09	
J.	\$50,000 - \$54,999	10	
K.	\$55,000 - \$59,999	11	
L.	\$60,000 - \$64,999	12	
M.	\$65,000 - \$69,999	13	
N.	\$70,000 - \$74,999	14	
O.	\$75,000 - \$79,999	15	
P.	\$80,000 - \$84,999	16	
Q.	\$85,000 - \$89,999	17	
R.	\$90,000 - \$94,999	18	
S.	\$95,000 - \$99,999	19	
T.	\$100,000 or more	20	

- 3a. HAVE PARTICIPANT COMPLETE DIETARY ASSESSMENT FORM.

3b. INTERVIEWER:

RECORD TIME ENDED

: AM  
PM

71-74/

B-217

**INTERVIEWER REMARKS**

**INTERVIEWER:** Please complete these remarks as soon as you have finished the questionnaire.

1. Length of the interview:

75-77/

MINUTES

BEGIN DECK 69

2. Date of the interview:

10-15/

MONTH

DAY

YEAR

3. Race of Respondent:

White .....	1	16/
Black .....	2	
Other .....	3	

4. In general, what was the respondent's attitude toward the interview?

Friendly and interested .....	1	17/
Cooperative but not particularly interested .....	2	
Impatient and restless .....	3	
Hostile .....	4	

5. In general, was the respondent's understanding of the questions ...

Good? .....	1	18/
Fair? .....	2	
Poor? .....	3	



6. List questions that confused, angered, or caused discomfort to the respondent or questions that you feel the respondent did not answer truthfully. EXPLAIN.

NONE ..... 0 19/

Section	Question
A. <input type="text"/> <input type="text"/> 20-21/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 22-26/
B. <input type="text"/> <input type="text"/> 27-28/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 29-33/
C. <input type="text"/> <input type="text"/> 34-35/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 36-40/

Describe Problem: \_\_\_\_\_ 41/

7. List questions with skip errors, questions that were confusing to you, or questions that otherwise didn't work. EXPLAIN.

NONE ..... 0 42/

Section	Question
A. <input type="text"/> <input type="text"/> 43-44/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 45-49/
B. <input type="text"/> <input type="text"/> 50-51/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 52-56/
C. <input type="text"/> <input type="text"/> 57-58/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 59-63/

Describe Problem: \_\_\_\_\_ 64/

8. Please record your interviewer ID #:       65-70/

9. Please sign your name here: \_\_\_\_\_

BEGIN DECK 70

10. PRINT THE RESPONDENT'S FULL NAME:

FIRST

MIDDLE

10-39/

LAST

40-59/

**LOG OF AUTHORIZATION FORMS TO BE RETURNED  
TO AIR FORCE BY PARTICIPANT**

A Verification on Participant Condition		B Verification on Dependent Condition		C Patient's Name	D Condition to be Verified	E Q.# where Doctor or Facility Info is recorded
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____
Y	N	Y	N	_____	_____	_____

INFORMATION SHEET  
1992 AIR FORCE HEALTH STUDY

05/13/92

CASE-ID

RESPONDENT

SOCIAL SECURITY NUMBER

DATE OF LAST INTERVIEW

01 DATE OF BIRTH

02 DEGREE LAST OBTAINED

03 MILITARY STATUS : Discharged, Retired or Separate

BRANCH : Non-active Duty

COUNTRY :

DATE OF ASSIGNMENT :

04A SPOUSES/PARTNERS NAMED IN ROUND III : \*\*\*\*\*

04 MARITAL STATUS AT LAST INTERVIEW : Married

05 PARTNER AT LAST INTERVIEW? (ID#/NAME): No

06 SPOUSE AT LAST INTERVIEW? (ID#/NAME): Yes

07 SPOUSES/PARTNERS SINCE LAST INTERVIEW:

<input type="checkbox"/>	<input type="checkbox"/>	-----	-----	-----	-----
		LAST	FIRST	MIDDLE	MAIDEN
<input type="checkbox"/>	<input type="checkbox"/>	-----	-----	-----	-----
<input type="checkbox"/>	<input type="checkbox"/>	-----	-----	-----	-----
<input type="checkbox"/>	<input type="checkbox"/>	-----	-----	-----	-----

05/13/92  
4563

Case-ID :  
Respondent:

CHILDREN'S RECORD FORM

Respondent's Biological Children

(Interviewer: Please emphasize these are his \*natural\* children)

Mother's Id	Child's Id	First Name	Last Name	Sex	DOB	80+ DEF	82+ DEF	85+ DEF	87+ DEF	YES NO
										YES NO

B-222

(SG) : INFORMATION MISSING  
)+, 82+, 85+ DEF - 'YES': BIRTH DEFECT, OR LEARNING DISABILITY, OR PHYSICAL, MENTAL, OR MOTOR IMPAIRMENTS HAVE BEEN REPORTED  
' : NONE OF THESE  
' : DEF - PREPRINT 'YES' AND 'NO'

**PRIVACY ACT STATEMENT—EPIDEMIOLOGIC STUDY**

**AUTHORITY:** Section 133, 1071-87, 3012, 5031 and 8012, Title 10, United States Code and Executive Order 9397.

**PRINCIPAL AND PURPOSE(S):** The purpose of requesting personal information is to assist medical/technical personnel in developing records relative to your participation in an approved epidemiologic investigation. The Social Security (SSN) and Armed Forces Service Number (AFSN) are necessary to identify the person and records.

**ROUTINE USES:** This information will be used to initiate, coordinate, and conduct the investigation. It will be used to compile statistical data, but information allowing identification of the individual volunteer will not be included. Data and results from this investigation may be used to supplement other approved research studies conducted at the USAF School of Aerospace Medicine or at other Federal agencies engaged in the conduct of similar studies.

**WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY, AND EFFECT ON INDIVIDUAL FOR NOT PROVIDING INFORMATION:** Disclosure or requested information is voluntary. If the information is not furnished, acceptance as a subject is not possible. This is an all-inclusive Privacy Act Statement which will apply to all request for personnel during the time you are a volunteer subject. A copy of this form will be placed in your investigation subject folder as evidence of this notification.

Your signature merely acknowledges that you have been advised of the foregoing. If requested, a copy of this form will be furnished to you.

---

Signature of Volunteer

AFSN

SSN

DATE



DEPARTMENT OF THE AIR FORCE  
USAF SCHOOL OF AEROSPACE MEDICINE (AFSC)  
BROOKS AIR FORCE BASE, TEXAS 78235

Participant Medical  
Authorization Form

AUTHORIZATION FOR RELEASE OF MEDICAL INFORMATION

Patient's Name: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Name of Doctor: \_\_\_\_\_

Name of Facility: \_\_\_\_\_

Address of Facility: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Condition: \_\_\_\_\_

Date of Medical Care: \_\_\_\_\_

Condition: \_\_\_\_\_

Date of Medical Care: \_\_\_\_\_

Condition: \_\_\_\_\_

Date of Medical Care: \_\_\_\_\_

Condition: \_\_\_\_\_

Date of Medical Care: \_\_\_\_\_

The United States Air Force, under the direction of the White House, is currently conducting a study of Air Force personnel exposed to the complex environment of Southeast Asia. Part of this study examines the past medical history of Vietnam veterans and their families.

As a participant in this study, medical information is needed to validate data which was provided during a personal interview, self-administered questionnaire, and/or physical examination. The data will be maintained in compliance with the Privacy Act of 1974. No individually recognizable data will be released. Only statistical aggregate data will be released to the U.S. Congress and to the U.S. Public.

You are hereby authorized and requested to release the complete clinical record to:

USAFSAM/EKEO  
Brooks AFB TX 78235  
Attn: Mr. Vince Elequin

The authorization is null and void 120 days after the date signed below without expressed revocation, although it may be revoked by the undersigned at any time except to the extent that action has been taken in reliance thereon.

Witness: \_\_\_\_\_ Date Signed: \_\_\_\_\_

Signature: \_\_\_\_\_ Date Signed: \_\_\_\_\_

Case ID#: ! \_\_\_\_ ! \_\_\_\_ ! \_\_\_\_ ! \_\_\_\_ ! \_\_\_\_ !

AFTER COMPLETING AUTHORIZATION FORMS, CONTINUE FILLING OUT QUESTIONNAIRE

HEALTH CARE PROVIDER FORM  
SECTION F: CHILD AND FAMILY HEALTH

FOR EACH PARTICIPANT'S CHILDREN THAT HAS CANCER, A DISABILITY, OR DEFECT, COLLECT INFORMATION REGARDING (1) THE DOCTOR WHO FIRST DESCRIBED THE CONDITION, (2) THE DIAGNOSIS ITSELF, AND (3) THE DOCTOR WHO LAST SAW THE CHILD. IF CHILD HAS MORE THAN ONE KIND OF CANCER, DEFECT, OR DISABILITY, FILL OUT A NEW FORM FOR EACH CONDITION. COMPLETE A YELLOW MEDICAL AUTHORIZATION FORM FOR EACH DOCTOR THAT HAS SEEN THE CHILD.

29 What is the child's name?

30 What is (CHILD'S) date of birth?

Last \_\_\_\_\_ First \_\_\_\_\_

M | | | D | | | Y | | |

Is (CHILD'S) defect or disability best described as a learning disability, physical or motor impairment, mental impairment, cancer, or birth defect? (CIRCLE APPROPRIATE NUMBER)

- Learning disability ..... 1  
Physical or motor impairment ..... 2  
Mental impairment ..... 3  
Cancer ..... 4  
Birth defect ..... 5

COLUMN 1: What is the name and address of the medical facility and doctor(s) who first described (diagnosed) the child's cancer, defect, or disability?

31-A	Facility Name:
31-A	Building:
31-A	Street:
	City State Zip Code
31-B	Physician Name:
31-C	Physician Name:

COLUMN 2: THE DIAGNOSIS ITSELF

32-A What is/was the diagnosis? (PROBE: That is, the doctor's description of the cancer, defect, or disability.)

--

In what month and year did the doctor(s) FIRST describe the cancer, defect, or disability?

32-B M | | | Y | | |

In what month and year did the child LAST see a doctor about this cancer, defect, or disability?

32-C M | | | Y | | |

COLUMN 3: What is the name and address of the medical facility and doctor(s) who LAST saw the child about the cancer, defect or disability?

--

• IF MEDICAL FACILITY AND DOCTOR INFORMATION IS THE SAME FOR THE FIRST AND LAST VISITS, CHECK BOX, GO TO NEXT HEALTH CARE PROVIDER FORM.

• IF BOX IS NOT CHECKED, COMPLETE PHYSICIAN/FACILITY INFORMATION BELOW.

33-A	Facility Name:
33-A	Building:
33-A	Street:
	City State Zip Code
33-B	Physician Name:
33-C	Physician Name:

34. COMPLETE A YELLOW MEDICAL AUTHORIZATION FORM FOR EACH DOCTOR SEEN.

35. IF OTHER CANCERS, BIRTH DEFECTS, OR DISABILITIES FOR THIS CHILD, FILL OUT ANOTHER HEALTH CARE PROVIDER FORM.

## CHILDREN'S SUPPLEMENTAL RECORD FORM

**CASE ID NO.**: | | |

B-226

[illegible]



**SELF-ADMINISTERED FORM 2  
RESIDENCE HISTORY  
(FROM PAGE G-7 IN INTERVAL QUEX)**

We would like you to tell us all the places you've lived since you were born. Please list all the places you've lived for more than 12 months starting with the first place since birth.

EXAMPLE: I lived in Chicago, Illinois for 6 years.

CITY/TOWN	STATE	COUNTRY	# YEARS
Chicago	IL		6
<b>A.</b> What is the name of the (first/next) city or town you lived in for more than 12 months since birth?	<b>B.</b> What state is that in?	<b>C.</b> What country is that in? (IF OTHER THAN USA)	<b>D.</b> How many years did you live there?
CITY/TOWN	STATE	COUNTRY	# YEARS
1. _____	_____ _____	_____	_____
2. _____	_____ _____	_____	_____
3. _____	_____ _____	_____	_____
4. _____	_____ _____	_____	_____
5. _____	_____ _____	_____	_____
6. _____	_____ _____	_____	_____
7. _____	_____ _____	_____	_____
8. _____	_____ _____	_____	_____
9. _____	_____ _____	_____	_____
10. _____	_____ _____	_____	_____

CASE ID

**A.**  
 What is the name of the  
 (first/next) city or town  
 you lived in for more than  
 12 months since birth?

CITY/TOWN

**B.**  
 What  
 state  
 is that  
 in?

STATE

**C.**  
 What country  
 is that in?  
 (IF OTHER  
 THAN USA)

COUNTRY

**D.**  
 How many years  
 did you live there?

# YEARS

11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

C	D	E	F	G
Do you have (CONDITION) now?	Are you currently taking any prescribed medicines for your (CONDITION)?	What are the names of medicines you are taking? Any others?	When did you last consult <u>a doctor</u> for (CONDITION) between (DATE OF LAST INTERVIEW) and now?	What is the full name and address of the doctor or medical facility you last consulted? IF DIFFERENT DOCTOR FROM B, COMPLETE MEDICAL AUTHORIZATION FORM.
YES ..... 1 NO ..... 2 26/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) .... 2 27/	1) _____ 28-30/ 2) _____ 31-33/ 3) _____ 34-36/	_____ _____ _____ _____  MONTH YEAR 37-40/	PHYSICIAN'S LAST NAME 41/ FIRST NAME OR FACILITY NAME STREET ADDRESS CITY STATE INTERVIEWER: BEFORE ASKING ABOUT THYROID PROBLEMS, SKIP TO Q.IS25 IN I.S.R.B. PAGE 7.
YES ..... 1 NO ..... 2 42/	YES ..... 1 NO. (SKIP TO F FOR THIS CONDITION) .... 2 43/	1) _____ 44-46/ 2) _____ 47-49/ 3) _____ 50-52/	_____ _____ _____ _____  MONTH YEAR 53-56/	PHYSICIAN'S LAST NAME 57/ FIRST NAME OR FACILITY NAME STREET ADDRESS CITY STATE

DECK A \_\_\_\_\_

Case ID      

01-06

INTERVIEWER: ASK A THROUGH G FOR EACH CONDITION CODED YES.

		A	B
Since (DATE OF LAST INTERVIEW) has a doctor told you for the first time that you had...?		Between (DATE OF LAST INTERVIEW) and now, in what month and year <u>did</u> a doctor first tell you that you had (CONDITION)?	What is the full name and address of the doctor who first made the diagnosis or the medical facility where the diagnosis was first made? REVIEW MEDICAL AUTHORIZATION FORMS. IF FORM NOT COMPLETED FOR THIS DOCTOR, COMPLETE FORM NOW.
Question # <input type="text"/> <input type="text"/> 10-11/	YES ..... 1 NO ..... 2 12/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> MONTH YEAR 13-16/	PHYSICIAN'S LAST NAME 17/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  CITY <input type="text"/> <input type="text"/> STATE <input type="text"/> <input type="text"/>
Question # <input type="text"/> <input type="text"/> 18-19/	YES ..... 1 NO ..... 2 20/	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> MONTH YEAR 21-24/	PHYSICIAN'S LAST NAME 25/  FIRST NAME OR  FACILITY NAME  STREET ADDRESS  CITY <input type="text"/> <input type="text"/> STATE <input type="text"/> <input type="text"/>

B-230

CASE ID: 

1992 Air Force Health Study (#4563)

SELF-ADMINISTERED FORM 1

INTERVIEWER: CODE ONE

PERIOD 1.....1

PERIOD 2.....2 10/

PERIOD 3.....3

BEGIN DECK 

## SIDE A: FOR YOU

There are many reasons that some couples find it difficult or impossible to conceive a child. Please read this card and circle the number on Side A for each reason which applied to you for this period. Side B provides reasons appropriate for your spouse. Circle as many responses as appropriate.

For each reason, please record the year this occurred or became known to you.

- A. Vasectomy ..... 01 11-12 YEAR: 19   13-14/
- B. Prostatectomy ..... 02 15-16/ 19   17-18/
- C. Sterility due to other surgery  
(PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 03 19-20/ 19   22-23/  
21/
- D. Sterility due to injury, accident, or illness  
(PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 04 24-25/ 19   27-28/  
26/
- E. Impotence ..... 05 29-30/ 19   31-32/
- F. Other medical or physical condition (PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 06 33-34/ 19   36-37/  
35/
- G. Sterility due to unknown causes ..... 07 38-39/ 19   40-41/
- H. No reason applies to me; reasons  
only apply to my spouse ..... 08 42-43/

PLEASE USE SIDE B FOR REASONS APPROPRIATE  
FOR YOUR SPOUSE

NO MEDICAL RELEASE REQUIRED.

SELF-ADMINISTERED FORM 1

SIDE B: FOR YOUR SPOUSE

Please circle the number on Side B for each reason which applied to your spouse for this period. Circle as many responses as appropriate.

For each reason, please record the year this occurred or became known to you.

- A. Tubal ligation ..... 01 44-45 YEAR: 19   46-47/
- B. Hysterectomy ..... 02 48-49/ 19   50-51/
- C. Infertility due to other surgery  
(PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 03 52-53/ 19   55-56/  
54/
- D. Infertility due to injury, accident, or illness  
(PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 04 57-58/ 19   60-61/  
59/
- E. Other medical or physical condition (PLEASE SPECIFY)  
\_\_\_\_\_  
\_\_\_\_\_ 05 62-63/ 19   65-66/  
64/
- F. Infertility due to unknown causes ..... 06 67-68/ 19   69-70/
- G. No reason applies to my spouse;  
reasons only apply to me ..... 07 71-72/

## INSTRUCTIONS

Please use an ordinary No. 2 pencil to answer all questions. Fill in the appropriate response circles completely, or write requested information in the boxes provided. The form is designed to be read by optical-scanning equipment, so it is important that you make **NO STRAY MARKS** and keep any write-in responses **WITHIN** the spaces provided. Should you need to change a response, erase the incorrect mark completely. If you have any comments, please write them on a separate piece of paper.

### EXAMPLE 1.

**MARK YOUR AVERAGE USE OF EACH SPECIFIC FOOD FOR A PERIOD OF TIME REQUESTED. FOR EXAMPLE, IF A FOOD SUCH AS TOMATOES IS EATEN 4 TIMES A WEEK DURING THE APPROXIMATE 3 MONTHS THAT IT IS IN SEASON, THEN THE AVERAGE USE WOULD BE ONCE PER WEEK.**

VEGETABLES									
Tomatoes (1) or Tomato juice (small glass)---	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
String beans (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broccoli (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cabbage, cauliflower, or Brussels sprouts (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carrots, raw (1/2 carrot or 2-4 sticks)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carrots, cooked (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### EXAMPLE 2.

**KEEP HANDWRITING WITHIN BORDERS OF THE RESPONSE BOX.**  
**What kind of cold breakfast cereal do you usually use?**  
 (e.g. Kelloggs Cracklin Oat Bran)

6. Which cold breakfast cereal do you usually eat? ☒ Don't eat cold breakfast cereal

Specify brand and type
Kelloggs Cracklin Oat Bran

### EXAMPLE 3.

**MARK "YES" OR "NO" AND THE NUMBER OF YEARS AND DOSE OF A VITAMIN PREPARATION**

Zinc?	<input type="radio"/> No <input checked="" type="radio"/> Yes	→ If YES,	How many years?	<input type="radio"/> 0-1 yr.	<input checked="" type="radio"/> 2-4 years	<input type="radio"/> 5-9 years	<input type="radio"/> 10+ years	<input type="radio"/> Don't know
			What dose per day?	<input type="radio"/> Less than 25 mg.	<input type="radio"/> 25 to 74 mg.	<input type="radio"/> 75 to 100 mg.	<input checked="" type="radio"/> 101 mg. or more	<input type="radio"/> Don't know
Calcium? (Include Calcium in Dolomite and Turns, etc.)	<input checked="" type="radio"/> No <input type="radio"/> Yes	→ If YES,	How many years?	<input type="radio"/> 0-1 yr.	<input type="radio"/> 2-4 years	<input type="radio"/> 5-9 years	<input type="radio"/> 10+ years	<input type="radio"/> Don't know
			What dose per day?	<input type="radio"/> Less than 400 mg.	<input type="radio"/> 400 to 900 mg.	<input type="radio"/> 901 to 1300 mg.	<input type="radio"/> 1301 mg. or more	<input type="radio"/> Don't know

**THANK YOU FOR COMPLETING THE FOOD FREQUENCY QUESTIONNAIRE.**

# DIET ASSESSMENT

ID:

1. Do you currently take multiple vitamins? (Please report individual vitamins under question 2.)

☐ No ☐ Yes → If yes, a) How many do you take per week? ☐ 2 or less ☐ 3-5 ☐ 6-9 ☐ 10 or more

b) What specific brand do you usually use? →

Specify exact brand and type

2. Not counting multiple vitamins, do you take any of the following preparations:

a) Vitamin A?

☐ No ☐ Yes, seasonal only  
☐ Yes, most months

If Yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 8,000 IU ☐ 8,000 to 12,000 IU ☐ 13,000 to 22,000 IU ☐ 23,000 IU or more ☐ Don't know

b) Vitamin C?

☐ No ☐ Yes, seasonal only  
☐ Yes, most months

If Yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 400 mg. ☐ 400 to 700 mg. ☐ 750 to 1250 mg. ☐ 1300 mg. or more ☐ Don't know

c) Vitamin B<sub>6</sub>?

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 10 mg. ☐ 10 to 39 mg. ☐ 40 to 79 mg. ☐ 80 mg. or more ☐ Don't know

d) Vitamin E?

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 100 IU ☐ 100 to 250 IU ☐ 300 to 500 IU ☐ 600 IU or more ☐ Don't know

e) Selenium?

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 80 mcg. ☐ 80 to 130 mcg. ☐ 140 to 250 mcg. ☐ 260 mcg. or more ☐ Don't know

f) Iron?

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 51 mg. ☐ 51 to 200 mg. ☐ 201 to 400 mg. ☐ 401 mg. or more ☐ Don't know

g) Zinc?

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 25 mg. ☐ 25 to 74 mg. ☐ 75 to 100 mg. ☐ 101 mg. or more ☐ Don't know

h) Calcium?

(Exclude Calcium in Dairy Foods.)

☐ No ☐ Yes → If yes,

How many years? → ☐ 0-1 yr. ☐ 2-4 yrs. ☐ 5-9 yrs. ☐ 10+ yrs. ☐ Don't know  
What dose per day? → ☐ Less than 400 mg. ☐ 400 to 900 mg. ☐ 901 to 1300 mg. ☐ 1301 mg. or more ☐ Don't know

i) Are there other supplements that you take on a regular basis? Please mark if yes:

☐ Folic acid

☐ Cod liver Oil

☐ Iodine

☐ Beta-Carotene

☐ Other (please specify):

☐ Vitamin D

☐ Copper

☐ Magnesium

☐ B-Complex Vitamins

☐ Omega-3 Fatty-acids

☐ Brewer's Yeast

3. For each food listed, fill in the circle indicating how often on average you have used the amount specified during the past year.

	AVERAGE USE LAST YEAR								
	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6+ per day
<b>DAIRY FOODS</b>									
Skim or low fat milk (8 oz. glass)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whole milk (8 oz. glass)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cream, e.g. coffee, whipped (Tbs)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sour cream (Tbs)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-dairy coffee whitener (tsp.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sherbet or ice milk (½ cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ice cream (½ cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yogurt (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cottage or ricotta cheese (½ cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cream cheese (1 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other cheese, e.g. American, cheddar, etc., plain or as part of a dish (1 slice or 1 oz. serving)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Margarine (pat.), added to food or bread; exclude use in cooking	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Butter (pat.), added to food or bread; exclude use in cooking	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B-234



3. (Continued) Please fill in your average use, during the past year, of each specified food.

Please try to average your seasonal use of foods over the entire year. For example, if a food such as cantaloupe is eaten 4 times a week during the approximate 3 months that it is in season, then the average use would be once per week.

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6+ per day	
<b>FRUITS</b>										
Raisins (1 oz. or small pack) or grapes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prunes (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bananas (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cantaloupe (1/2 melon)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watermelon (1 slice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fresh apples or pears (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apple juice or cider (small glass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oranges (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orange juice (small glass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grapefruit (1/2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grapefruit juice (small glass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other fruit juices (small glass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strawberries, fresh, frozen or canned (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blueberries, fresh, frozen or canned (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peaches, apricots or plums (1 fresh, or 1/2 cup canned)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6+ per day	
<b>VEGETABLES</b>										
Tomatoes (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tomato juice (small glass)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tomato sauce (1/2 cup) e.g. spaghetti sauce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Red chili sauce (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tofu or soybeans (3-4 oz.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
String beans (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broccoli (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cabbage or cole slaw (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cauliflower (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brussels sprouts (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carrots, raw (1/2 carrot or 2-4 sticks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carrots, cooked (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Corn (1 ear or 1/2 cup frozen or canned)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peas, or lima beans (1/2 cup fresh, frozen, canned)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed vegetables (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beans or lentils, baked or dried (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yellow (winter) squash (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eggplant, zucchini, or other summer squash (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yams or sweet potatoes (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spinach, cooked (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spinach, raw as in salad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kale, mustard or chard greens (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Iceberg or head lettuce (serving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Romaine or leaf lettuce (serving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Celery (4" stick)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beets (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alfalfa sprouts (1/2 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Garlic, fresh or powdered (1 clove or shake)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B-235

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6+ per day	
<b>EGGS, MEAT, ETC.</b>										
Eggs (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chicken or turkey, with skin (4-6 oz.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chicken or turkey, without skin (4-6 oz.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bacon (2 slices)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hot dogs (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. (Continued) Please fill in your average use,  
during the past year, of each specified food.

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6- per day	
<b>MEATS (CONTINUED)</b>										
Processed meats, e.g. sausage, salami, bologna, etc. (piece or slice)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liver (3-4 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hamburger (1 patty)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beef, pork, or lamb as a sandwich or mixed dish, e.g. stew, casserole, lasagne, etc.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beef, pork, or lamb as a main dish, e.g. steak, roast, ham, etc. (4-6 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canned tuna fish (3-4 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dark meat fish, e.g. mackerel, salmon, sardines, bluefish, swordfish (3-5 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other fish (3-5 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shrimp, lobster, scallops as a main dish	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6- per day	
<b>BREADS, CEREALS, STARCHES</b>										
Cold breakfast cereal (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooked oatmeal (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other cooked breakfast cereal (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White bread (slice), including pita bread	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dark bread (slice)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
English muffins, bagels, or rolls (1)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Muffins or biscuits (1)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brown rice (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White rice (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pasta, e.g. spaghetti, noodles, etc. (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other grains, e.g. bulgur, kasha, couscous, etc. (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pancakes or waffles (serving)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
French fried potatoes (4 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potatoes, baked, boiled (1) or mashed (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potato chips or corn chips (small bag or 1 oz.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crackers, Triskets, Wheat Thins (1)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pizza (2 slices)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6- per day	
<b>BEVERAGES</b>										
<b>CARBONATED BEVERAGES</b>  Consider the serving size as 1 glass, bottle or can for these carbonated beverages.	Low Calorie (sugar-free) types	Low calorie cola, e.g. Tab with caffeine	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Low calorie caffeine-free cola, e.g. Pepsi Free	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Other low calorie carbonated beverage, e.g. Fresca, Diet 7-Up, diet ginger ale	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Regular types (not sugar-free)	Coke, Pepsi, or other cola with sugar	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Caffeine Free Coke, Pepsi, or other cola with sugar	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Other carbonated beverage with sugar, e.g. 7-Up, ginger ale	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>OTHER BEVERAGES</b>		Hawaiian Punch, lemonade, or other non-carbonated fruit drinks (1 glass, bottle, can)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Decaffeinated coffee (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Coffee (1 cup)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Tea (1 cup), not herbal teas	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Beer (1 glass, bottle, can)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Red wine (4 oz. glass)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		White wine (4 oz. glass)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Liquor, e.g. whiskey, gin, etc. (1 drink or shot)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

B-236

ID: \_\_\_\_\_

0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9

3. (Continued) Please fill in your average use during the past year, of each specified food.

**SWEETS, BAKED GOODS, MISCELLANEOUS**

	Never, or less than once per month	1-3 per mo.	1 per week	2-4 per week	5-6 per week	1 per day	2-3 per day	4-5 per day	6+ per day										
Chocolate (bars or pieces) e.g. Hershey's, M&M's	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Candy bars, e.g. Snickers, Milky Way, Reeses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Candy without chocolate (1 oz.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Cookies, home baked (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Cookies, ready made (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Brownies (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Doughnuts (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Cake, home baked (slice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Cake, ready made (slice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Sweet roll, coffee cake or other pastry, home baked (serving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Sweet roll, coffee cake or other pastry, ready made (serving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Pie, homemade (slice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Pie, ready made (slice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Jams, jellies, preserves, syrup, or honey (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Peanut butter (Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Popcorn (1 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Nuts (small packet or 1 oz.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Bran, added to food (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Wheat germ (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Chowder or cream soup (1 cup)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Oil and vinegar dressing, e.g. Italian (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Mayonnaise or other creamy salad dressing (1 Tbs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Mustard, dry or prepared (1 tsp)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Pepper (1 shake)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										
Salt (1 shake)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>										

4. How much of the visible fat on your meats do you remove before eating?
- ☐ Remove all visible fat      ☐ Remove small part of fat
- ☐ Remove majority      ☐ Remove none
- ☐ (Don't eat meat)

5. What kind of fat do you usually use for frying and sautéing? (Exclude "Pam"-type spray)
- ☐ Real butter      ☐ Vegetable oil      ☐ Lard
- ☐ Margarine      ☐ Vegetable shortening

6. What kind of fat do you usually use for baking?
- ☐ Real butter      ☐ Vegetable oil      ☐ Lard
- ☐ Margarine      ☐ Vegetable shortening

7. What form of margarine do you usually use?
- ☐ None      ☐ Stick      ☐ Tub      ☐ Spread
- ☐ Low-calorie stick      ☐ Low-calorie tub

8. How often do you eat food that is fried at home? (Exclude the use of "Pam"-type spray)
- ☐ Daily      ☐ 4-6 times per week
- ☐ 1-3 times per week      ☐ Less than once a week

9. How often do you eat fried food away from home? (e.g. french fries, fried chicken, fried fish)
- ☐ Daily      ☐ 4-6 times per week
- ☐ 1-3 times per week      ☐ Less than once a week

10. How many teaspoons of sugar do you add to your beverages or food each day? \_\_\_\_\_ tsp.

11. What type of cooking oil do you usually use? \_\_\_\_\_ Specify type and brand

12. What kind of cold breakfast cereal do you usually use? \_\_\_\_\_ Specify type and brand

13. Are there any other important foods that you usually eat at least once per week?

Include for example: pâté, tortillas, yeast, cream sauce, custard, horseradish, parsnips, rhubarb, radishes, fava beans, carrot juice, coconut, avocado, mango, papaya, dried apricots, dates, figs.

(Do not include dry spices and do not list something that has been listed in the previous sections.)

	Other foods that you usually use at least once per week	Usual serving size	Servings per week
(a)			
(b)			
(c)	B-237		
(d)			

**Project No: 4563**

**Air Force Health Study  
Third Followup Examinations  
1992-1993**

**Interval Supplementary Recording Book**

**B-238**

CASE ID #        
Project No: 4563

**Air Force Health Study  
Third Followup Examinations  
1992-1993**

**Interval Supplementary Recording Book**

**May 15, 1992**

B-239  
**11:24 am**

**Field Version 1.1**

**OCCUPATIONAL EXPOSURE TO HEAVY METALS AND VIBRATING POWER TOOLS**

**THIS SECTION CONTAINS QUESTIONS IS1 - IS17**

- IS1. Now I am going to ask you a few questions about equipment or metals you may have been regularly exposed to at work in any of the jobs you have ever had, not just the recent one(s) that you just told me about.

First, in any job you have held, have you ever worked for 30 days or more with vibrating power equipment or tools?

YES ..... 1  
NO ..... (SKIP TO Q.IS5) ..... 2

- IS2. In what year did you start working with vibrating power equipment or tools?

RECORD YEAR: 1 9 |\_\_|\_\_|

- IS3. In what year did you last work with vibrating power equipment or tools?

RECORD YEAR: 1 9 |\_\_|\_\_|

- IS4. For how many months in all did you work with vibrating power equipment or tools?

RECORD NUMBER OF MONTHS: |\_\_|\_\_|

- IS5. In any job you have held, have you ever worked for 30 days or more with lead?

YES ..... 1  
NO ..... (SKIP TO Q.IS9) ..... 2

- IS6. In what year did you start working with lead?

RECORD YEAR: 1 9 |\_\_|\_\_|

- IS7. In what year did you last work with lead?

RECORD YEAR: 1 9 |\_\_|\_\_|



IS8. For how many months in all did you work with lead?

RECORD NUMBER OF MONTHS: |\_\_|\_\_|

IS9. In any job you have held, have you ever worked for 30 days or more with mercury--either metallic mercury or mercury vapor?

YES ..... 1  
NO ..... (SKIP TO Q.IS13) ..... 2

IS10. In what year did you start working with mercury?

RECORD YEAR: 1 9 |\_\_|\_\_|

IS11. In what year did you last work with mercury?

RECORD YEAR: 1 9 |\_\_|\_\_|

IS12. For how many months in all did you work with mercury?

RECORD NUMBER OF MONTHS: |\_\_|\_\_|

IS13. In any job you have held, have you ever worked for 30 days or more with any other heavy metal, such as chromium, nickel, or copper?

YES ..... 1

NO ... .. 2

(IF ANY CIVILIAN JOBS, RETURN TO SECTION C,  
Q.21, PAGE C-13 IN INTERVAL Q. IF NO CIVILIAN  
JOBS, RETURN TO SECTION D, Q.1, PAGE D-1 IN  
INTERVAL Q.)

IS14. What (other) type(s) of heavy metals did you work with? CODE ALL THAT APPLY:

CHROMIUM ..... 01  
NICKEL ..... 02  
COOPER ..... 03  
CADMIUM ..... 04  
MANGANESE ..... 05  
ARSENIC ..... 06  
SELENIUM ..... 07  
MOLYBDENUM ..... 08  
OTHER ..... (SPECIFY) ..... 97

IS15. In what year did you start working with one of these (other) heavy metals?

RECORD YEAR: 1 9 |\_\_|\_\_|

IS16. In what year did you last work with one of these (other) heavy metals?

RECORD YEAR: 1 9 |\_\_|\_\_|

IS17. For how many months in all did you work with one or more of these (other) heavy metals?

RECORD NUMBER OF MONTHS: |\_\_|\_\_| MONTHS

IF ANY CIVILIAN JOBS, RETURN TO SECTION C, Q.21 ON PAGE C-13 IN INTERVAL Q.  
IF NO CIVILIAN JOBS, RETURN TO SECTION D, Q.1 ON PAGE D-1 IN INTERVAL Q.

B-242



**FAMILY HEALTH HISTORY**

**THIS SECTION CONTAINS QUESTIONS IS18 - IS24**

IS18. The next few questions are about (other) possible medical conditions of your immediate family, that is, your biological mother, father, sisters, and brothers.

First, has anyone in your immediate family ever had diabetes or sugar diabetes? Do not count stepparents or adopted, step or half brothers and sisters.

YES .....	1
NO ..... (SKIP TO Q. IS21) .....	2
DON'T KNOW ..... (SKIP TO Q. IS21) .....	8

IS19. Which members of your immediate family have or had diabetes? CODE ALL THAT APPLY.

MOTHER .....	1
FATHER .....	2
SISTER(S) .....	3
BROTHER(S) .....	4

IS20. Did any of these family members first have diabetes when they were younger than age 30?

YES .....	1
NO .....	2

IS21. Has anyone in your immediate family ever had heart trouble or heart disease? (Do not count stepparents or adopted, step or half brothers and sisters.)

YES .....	1	
NO .....	(SKIP BACK TO SECTION F, Q.28 ON PAGE F-15 IN INTERVAL Q) .....	2
DON'T KNOW .....	(SKIP BACK TO SECTION F, Q.28 ON PAGE F-15 IN INTERVAL Q) .....	8

IS22. Which members of your immediate family have or had heart trouble or heart disease? CIRCLE ALL THAT APPLY.

MOTHER .....	1
FATHER .....	2
SISTER(S) .....	3
BROTHER(S) .....	4

IS23. What type or types of heart trouble or heart disease did (he/she/they) have? CODE ALL THAT APPLY.

HYPERTENSION OR HIGH BLOOD PRESSURE ..... 1  
A STROKE ..... 2  
A HEART ATTACK ..... 3  
OTHER HEART TROUBLE OR DISEASE ..... 4  
SPECIFY: \_\_\_\_\_  
\_\_\_\_\_

IS24. Did any of these family members first have heart trouble or heart disease when they were younger than age 45?

YES ..... 1  
NO ..... 2

SKIP BACK TO SECTION F, Q.28 ON PAGE F-15 IN THE INTERVAL QUESTIONNAIRE

**DIABETES**

THIS SECTION CONTAINS QUESTIONS IS25 - IS49

- IS25. Have you ever been told by a doctor or other health professional, such as a nurse or physician's assistant, that you had diabetes or sugar diabetes? (Do not include pre-, potential, or borderline diabetes.)

YES ..... 1

(SKIP BACK TO SECTION G, Q.37  
ON PAGE G-14 IN INTERVAL Q)

NO ..... 2

- IS26. How old were you when the (doctor/health professional) first told you that you had diabetes?

YEARS OLD |\_\_|\_\_|

- IS27. What is the full name and address of the doctor who first made the diagnosis, or the medical facility where the diagnosis was first made? REVIEW MEDICAL AUTHORIZATION FORMS. COMPLETE NEW MEDICAL AUTHORIZATION FORM, IF NECESSARY.

\_\_\_\_\_  
LAST NAME

\_\_\_\_\_  
FIRST NAME

OR

\_\_\_\_\_  
FACILITY NAME

\_\_\_\_\_  
STREET ADDRESS

\_\_\_\_\_  
CITY

\_\_\_\_\_  
STATE

- IS28. Have you ever been told that you have acidosis or ketoacidosis due to a high blood sugar level?

YES ..... 1

NO ..... 2

B-245

IS29. IF PARTICIPANT MENTIONED INSULIN AS ONE OF THE MEDICATIONS THAT HE IS CURRENTLY TAKING FOR HIS DIABETES IN RESPONSE TO QUESTION 36E IN SECTION G OF THE INTERVAL QUESTIONNAIRE, VERIFY THIS WITH PARTICIPANT, THEN CIRCLE "YES" FOR THIS QUESTION.

OTHERWISE ASK: Have you ever taken insulin injections?

YES ..... 1  
NO ..... (SKIP TO Q. IS35) ..... 2

IS30. Have you been taking insulin injections for most of the past 12 months?

YES ..... 1  
NO ..... 2

IS31. IF PARTICIPANT MENTIONED INSULIN AS ONE OF THE MEDICATIONS THAT HE IS CURRENTLY TAKING FOR HIS DIABETES IN RESPONSE TO QUESTION 1E IN SECTION G OF THE INTERVAL QUESTIONNAIRE, VERIFY THIS WITH PARTICIPANT, THEN CIRCLE "YES" FOR THIS QUESTION.

OTHERWISE ASK: Are you now taking insulin injections?

YES ..... 1  
NO ..... 2

IS32. How many years (have you been taking/did you take) insulin injections?

YEARS |\_\_|\_\_| [LESS THAN A YEAR = 00]

IS33. Have you ever had an insulin reaction?

YES ..... 1  
NO ..... (SKIP TO Q. IS35) ..... 2

IS34. About how many insulin reactions have you had during the past 12 months?

ENTER NUMBER: |\_\_|\_\_| [NONE = 00]

IS35. During the past 12 months, about how often, either on your own or with the help of a family member or friend, did you check your blood for glucose or sugar?

NEVER ..... 0

TIMES PER DAY | | | |

OR

TIMES PER WEEK | | | |

OR

TIMES PER MONTH | | | |

OR

TIMES PER YEAR | | | |

IS36. In the past 12 months, about how many times has a health professional checked your blood for glucose or sugar?

TIMES | | | NONE = 00

IS37. IF PARTICIPANT HAS NEVER CHECKED HIS OWN BLOOD GLUCOSE OR SUGAR LEVEL OR HAD IT CHECK BY A PROFESSIONAL (HIS ANSWER TO QUESTION IS35 WAS "NEVER" AND HIS ANSWER TO QUESTION IS36 WAS "NONE" ) CIRCLE "0" (NO TEST IN PAST 12 MONTHS) FOR THIS QUESTION.

OTHERWISE ASK: Based on all your blood sugar tests during the past 12 months, how often would you say your blood sugar level has been too high? Would you say always, most of the time, some of the time, rarely, or never?

NO TEST IN PAST 12 MONTHS .....	0
ALWAYS .....	1
MOST OF THE TIME .....	2
SOME OF THE TIME .....	3
RARELY .....	4
NEVER .....	5

IS38. IF PARTICIPANT MENTIONED DIABETES PILLS (OR ORAL HYPOGLYCEMICS) AS MEDICATIONS THAT HE IS CURRENTLY TAKING FOR HIS DIABETES IN RESPONSE TO QUESTION 36E IN SECTION G OF THE INTERVAL QUESTIONNAIRE, VERIFY THIS WITH PARTICIPANT, THEN CIRCLE "YES" FOR THIS QUESTION.

OTHERWISE ASK: Have you ever taken diabetes pills?

YES ..... 1  
NO ..... (SKIP TO Q. IS43) ..... 2

IS39. Have you been taking diabetes pills most of the past 12 months?

YES ..... 1  
NO ..... 2

IS40. IF PARTICIPANT MENTIONED DIABETES PILLS (OR ORAL HYPOGLYCEMICS) AS MEDICATIONS THAT HE IS CURRENTLY TAKING FOR HIS DIABETES IN RESPONSE TO QUESTION 1E IN SECTION G OF THE INTERVAL QUESTIONNAIRE, VERIFY THIS WITH PARTICIPANT, THEN CIRCLE "YES" FOR THIS QUESTION.

OTHERWISE ASK: Are you now taking diabetes pills?

YES ..... 1  
NO ..... (SKIP TO Q. IS43) ..... 2

IS41. IF PARTICIPANT GAVE YOU THE NAME OF THE MEDICINE IN QUESTION 1E IN SECTION G OF THE INTERVAL QUESTIONNAIRE, RECORD IT AGAIN BELOW.

OTHERWISE ASK: What is the name of the medicine that you are taking?

SPECIFY: \_\_\_\_\_

IS42. How many years (have you been taking/did you take) diabetes pills?

YEARS |\_\_| |\_\_| LESS THAN A YEAR = 00

IS43. Has a doctor, nurse, or other health professional ever given you a diet or instructions on what foods to eat for your diabetes?

YES ..... 1  
NO ..... (SKIP TO Q. IS46) ..... 2

IS44. Do you now follow the diet or instructions for your diabetes?

YES ..... 1  
NO ..... 2

IS45. How many years (have you been/were you) following a diet or instructions for your diabetes?

YEARS |\_\_|\_\_| LESS THAN A YEAR = 00

IS46. Do you carry or wear anything that identifies you as having diabetes?

YES ..... 1  
NO ..... 2

IS47. IF PARTICIPANT WAS DIAGNOSED WITH DIABETES SINCE HIS LAST INTERVIEW, AND GAVE YOU THE DATE WHEN HE LAST SAW A DOCTOR ABOUT HIS DIABETES IN QUESTION 36F IN SECTION G OF THE INTERVAL QUESTIONNAIRE, CIRCLE THE CATEGORY BELOW THAT CONTAINS THAT DATE.

OTHERWISE ASK: When did you last see or talk to a doctor or other health professional about your diabetes?

DURING PAST 2 WEEKS ..... 1  
OVER 2 WEEKS TO 6 MONTHS ..... 2  
OVER 6 MONTHS TO 12 MONTHS ..... 3  
OVER 12 MONTHS TO 2 YEARS ..... 4  
OVER 2 YEARS TO 5 YEARS ..... 5  
OVER 5 YEARS AGO ..... 6

(SKIP BACK TO SECTION G, Q.37  
ON PAGE G-14 IN INTERVAL Q)

(SKIP BACK TO SECTION G, Q.37  
ON PAGE G-14 IN INTERVAL Q)

(SKIP BACK TO SECTION G, Q.37  
ON PAGE G-14 IN INTERVAL Q)

IS48. Was the doctor or other health professional pleased with the degree of control you have over the level of sugar or glucose in your blood?

YES ..... 1  
NO ..... 2

IS49. About how many times a year do you see a doctor or other health professional about your diabetes?

LESS THAN ONCE A YEAR ..... 1  
ONCE A YEAR ..... 2  
TWICE A YEAR ..... 3  
3 TO 4 TIMES A YEAR ..... 4  
5 OR MORE TIMES A YEAR ..... 5  
NO REGULAR SCHEDULE ..... 6

SKIP BACK TO SECTION G, Q.37 ON PAGE G-14 IN THE INTERVAL QUESTIONNAIRE.

**HEPATITIS B**

**THIS SECTION CONTAINS QUESTION IS50**

IS50. Vaccination against hepatitis B has been recommended for health care workers and others at risk for hepatitis B infection since a plasma-derived vaccine first became available in June 1982. The hepatitis B vaccine is different from the hepatitis A vaccine, because the hepatitis B is administered in the arm. Since June of 1982, have you ever been vaccinated against the hepatitis B virus (HBV)?

YES ..... 1  
NO ..... 2

**SKIP BACK TO SECTION G, Q.51 ON PAGE G-30 IN THE INTERVAL QUESTIONNAIRE**



**PAIN IN LEGS**

**THIS SECTION CONTAINS QUESTIONS IS51 - IS61**

IS51. Do you get a pain in either or both of your legs while walking?

YES ..... 1  
NO ..... (SKIP TO Q. IS61) ..... 2

IS52. Does this pain ever begin when you are standing still or sitting?

YES ..... 1  
NO ..... 2

(SKIP BACK TO SECTION G, Q.59  
ON PAGE G-54 IN INTERVAL Q)

IS53. Do you get this pain in either or both of your calf muscles?

YES ..... 1

NO ..... 2

(SKIP BACK TO SECTION G, Q.59  
ON PAGE G-54 IN INTERVAL Q)

IS54. Do you get it when you walk uphill or hurry?

YES ..... 1

NO ..... 2  
NEVER HURRIES OR WALKS UPHILL ..... 0

(SKIP BACK TO SECTION G, Q.59  
ON PAGE G-54 IN INTERVAL Q)

IS55. Do you get it when you walk at an ordinary pace on level ground?

YES ..... 1  
NO ..... 2

IS56. Does the pain ever disappear while you are still walking?

YES ..... 1  
NO ..... 2

B-251

IS57. What do you usually do if you get it when you are walking?

STOP ..... 1  
SLOW DOWN ..... 2  
CONTINUE AT

(SKIP BACK TO SECTION G, Q.59  
ON PAGE G-54 IN INTERVAL Q)

SAME PACE ..... 3

IS58. What happens to it if you stand still or rest; does the pain usually continue for more than 10 minutes, or does it usually disappear in 10 minutes or less?

USUALLY CONTINUES MORE THAN 10 MINUTES ..... 1  
USUALLY DISAPPEARS IN 10 MINUTES OR LESS ..... 2

IS59. When you get this pain, have you ever noticed a change in the color of your legs when you get this pain?

YES ..... 1

(SKIP BACK TO SECTION G, Q.59  
ON PAGE G-54 IN INTERVAL Q)

NO ..... 2

IS60. Would you say that you notice this change in color always, most of the time, some of the time, rarely or never?

ALWAYS ..... 1  
MOST OF THE TIME ..... 2  
SOME OF THE TIME ..... 3  
RARELY ..... 4  
NEVER ..... 5

SKIP BACK TO SECTION G, Q.59 ON PAGE G-54 IN THE INTERVAL QUESTIONNAIRE

IS61. Did you ever get a pain in your legs while walking that went away when you rested, but no longer get it because you took medicine or had surgery for this condition? [NOTE TO INTERVIEWER: THE MEDICINE THAT THE PARTICIPANT MAY HAVE TAKEN ARE VASODILATING DRUGS. TYPES OF SURGERY WOULD INCLUDE REVASCULARIZATION, ENDARTECTOMY OR ANGIOPLASTY ON THE PARTICIPANT'S LEGS.]

YES ..... 1  
NO ..... 2

SKIP BACK TO SECTION G, Q.59 ON PAGE G-54 IN THE INTERVAL QUESTIONNAIRE

**PHYSICAL EXERCISE**

**THIS SECTION CONTAINS QUESTIONS IS62 - IS77**

IS62. These next few questions are about physical exercise. INTERVIEWER: FROM OBSERVATION OR PREVIOUS INFORMATION, IS R PHYSICALLY HANDICAPPED?

- YES ..... 1  
NO ..... (SKIP TO Q. IS65) ..... 2

IS63. HAND R CALENDAR. In the past two weeks, beginning Monday (DATE) and ending this past Sunday (DATE), have you done any exercises, sports, or physically active hobbies?

- YES ..... 1  
NO ..... (SKIP TO Q. IS69) ..... 2  
DON'T KNOW ..... (SKIP TO Q. IS69) ..... 8

IS64. What were they? RECORD IN QUESTION IS65.

PROBE: Anything else?

READ ONLY CATEGORIES IN Q. IS65 THAT PARTICIPANT COULD PERFORM WITH HIS HANDICAP.

IS65. HAND R CALENDAR. In the past two weeks (outlined on that calendar), beginning Monday (DATE) and ending this past Sunday (DATE), have you done any of the following exercises, sports, or physically active hobbies . . .	Yes No		IS66. How many times in the past 2 weeks did you [go/do] (ACTIVITY)?	IS67. On the average, how many minutes did you actually spend doing (ACTIVITY) each time?	IS68. What usually happened to your heart rate or breathing when you [did/went] (ACTIVITY)? Did you have a small, moderate, or large increase or no increase at all in your heartbreathing?  (1 = SMALL, 2 = MODERATE, 3 = LARGE, 0 = NONE, 8 = DON'T KNOW)
	Yes	No			
A. Walking for exercise?	1	2	_ _ _	_ _ _	1 2 3 0 8
B. Gardening or yard work?	1	2	_ _ _	_ _ _	1 2 3 0 8
C. Stretching exercises?	1	2	_ _ _	_ _ _	
D. Weightlifting or other exercises to increase muscle strength?	1	2	_ _ _	_ _ _	1 2 3 0 8
E. Jogging or running?	1	2	_ _ _	_ _ _	1 2 3 0 8
F. Hiking?	1	2	_ _ _	_ _ _	1 2 3 0 8

IS65. HAND R CALENDAR. In the past two weeks (outlined on that calendar), beginning Monday (DATE) and ending this past Sunday (DATE), have you done any of the following exercises, sports, or physically active hobbies . . .	Yes No		IS66. How many times in the past 2 weeks did you [go/do] (ACTIVITY)?	IS67. On the average, how many minutes did you actually spend doing (ACTIVITY) each time?	IS68. What usually happened to your heart rate or breathing when you [did/went] (ACTIVITY)? Did you have a small, moderate, or large increase or no increase at all in your heartbreathing?  (1 = SMALL, 2 = MODERATE, 3 = LARGE, 0 = NONE, 8 = DON'T KNOW)
	Yes	No			
G. Aerobics or aerobic dancing?	1	2	_ _ _	_ _ _	1 2 3 0 8
H. Calisthenics or general exercise?	1	2	_ _ _	_ _ _	1 2 3 0 8
I. Riding a bicycle or exercise bike?	1	2	_ _ _	_ _ _	1 2 3 0 8
J. Stair climbing?	1	2	_ _ _	_ _ _	1 2 3 0 8
K. Swimming for exercise?	1	2	_ _ _	_ _ _	1 2 3 0 8
L. Playing tennis?	1	2	_ _ _	_ _ _	1 2 3 0 8
M. Bowling?	1	2	_ _ _	_ _ _	

IS65. HAND R CALENDAR. In the past two weeks (outlined on that calendar), beginning Monday (DATE) and ending this past Sunday (DATE), have you done any of the following exercises, sports, or physically active hobbies . . .	Yes No	IS66. How many times in the past 2 weeks did you [go/do] (ACTIVITY)?	IS67. On the average, how many minutes did you actually spend doing (ACTIVITY) each time?	IS68. What usually happened to your heart rate or breathing when you [did/went] (ACTIVITY)? Did you have a small, moderate, or large increase or no increase at all in your heartbreathing?  (1 = SMALL, 2 = MODERATE, 3 = LARGE, 0 = NONE, 8 = DON'T KNOW)
N. Playing golf?	1 2	_ _ _		
O. Playing baseball or softball?	1 2	_ _ _	_ _ _	1 2 3 0 8
P. Playing handball, racquetball, or squash?	1 2	_ _ _	_ _ _	1 2 3 0 8
Q. Skiing?  (1) Downhill?	1 2 (SKIP TO R)	_ _ _		
(2) Cross-country?	1 2	_ _ _	_ _ _	1 2 3 0 8
R. Water skiing?	1 2	_ _ _		

IS65. HAND R CALENDAR. In the past two weeks (outlined on that calendar), beginning Monday (DATE) and ending this past Sunday (DATE), have you done any of the following exercises, sports, or physically active hobbies . . .	Yes No		IS66. How many times in the past 2 weeks did you [go/do] (ACTIVITY)?	IS67. On the average, how many minutes did you actually spend doing (ACTIVITY) each time?	IS68. What usually happened to your heart rate or breathing when you [did/went] (ACTIVITY)? Did you have a small, moderate, or large increase or no increase at all in your heartbreathing?  (1 = SMALL, 2 = MODERATE, 3 = LARGE, 0 = NONE, 8 = DON'T KNOW)
S. Playing basketball?	1	2	_ _ _ _	_ _ _ _	1 2 3 0 8
T. Playing volleyball?	1	2	_ _ _ _	_ _ _ _	1 2 3 0 8
U. Playing soccer?	1	2	_ _ _ _	_ _ _ _	1 2 3 0 8
V. Playing football?	1	2	_ _ _ _	_ _ _ _	1 2 3 0 8

<p>IS65. HAND R CALENDAR. In the past two weeks (outlined on that calendar), beginning Monday (DATE) and ending this past Sunday (DATE), have you done any of the following exercises, sports, or physically active hobbies . . .</p> <p style="text-align: center;"><u>Yes</u>      <u>No</u></p>	<p>IS66. How many times in the past 2 weeks did you [go/do] (ACTIVITY)?</p>	<p>IS67. On the average, how many minutes did you actually spend doing (ACTIVITY) each time?</p>	<p>IS68. What usually happened to your heart rate or breathing when you [did/went] (ACTIVITY)? Did you have a small, moderate, or large increase or no increase at all in your heartbreathing?</p> <p>(1 = SMALL, 2 = MODERATE, 3 = LARGE, 0 = NONE, 8 = DON'T KNOW)</p>
<p>W. Have you done any (other) exercises, sports, or physically active hobbies in the past 2 weeks?</p> <p style="text-align: center;">1      2 (SKIP TO Q. IS69)</p> <p>(1) What were they? Anything else? IF LISTED ACTIVITY, MARK "YES" FOR THAT ACTIVITY. OTHERWISE, SPECIFY: _____</p>	<p style="text-align: center;"> _ _ _ </p>	<p style="text-align: center;"> _ _ _ </p>	<p style="text-align: center;">1   2   3   0   8</p>
<p>(2) Anything else? IF "YES", CIRCLE AND SPECIFY: _____</p>	<p style="text-align: center;"> _ _ _ </p>	<p style="text-align: center;"> _ _ _ </p>	<p style="text-align: center;">1   2   3   0   8</p>



IS69. Overall, was the amount of physical exercise you did over the past two weeks fairly typical for you? That is, would you say that you were physically more active, less active, or about as active as you usually are during a typical two week period?

MORE ACTIVE .....	1
LESS ACTIVE .....	2
ABOUT AS ACTIVE .....	3

IS70. Do you exercise or play sports regularly?

YES .....	1
NO ..... (SKIP TO Q. IS72) .....	2

IS71. For how long have you exercised or played sports regularly? RECORD NUMBER AND CIRCLE APPROPRIATE UNIT OF TIME:

<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	DAYS .....	1
	WEEKS .....	2
	MONTHS .....	3
	YEARS .....	4

IS72. Would you say that you are physically more active, less active, or about as active as other persons your age?

MORE ACTIVE .....	1
LESS ACTIVE ..... (SKIP TO Q. IS73B) .....	2
ABOUT AS ACTIVE ..... (SKIP TO Q. IS74) .....	3

IS73A. Is that a lot more active or a little more active?

A LOT MORE ..... (SKIP TO Q. IS74) .....	1
A LITTLE MORE ..... (SKIP TO Q. IS74) .....	2

IS73B. Is that a lot less active or a little less active?

A LOT LESS .....	3
A LITTLE LESS .....	4

B-259

IS74. IF R IS NOT CURRENTLY WORKING, SKIP TO Q. IS76.

OTHERWISE ASK: How much hard physical work is required on your (current) job? Would you say a great deal, a moderate amount, a little, or none?

GREAT DEAL .....	1
MODERATE AMOUNT .....	2
A LITTLE .....	3
NONE .....	4

(SKIP BACK TO SECTION J, Q.1  
ON PAGE J-1 IN INTERVAL Q)

IS75. About how many hours per day do you perform hard physical work on your job?

HOURS PER DAY |\_\_|\_\_|

SKIP BACK TO SECTION J, Q.1 ON PAGE J-1 IN THE INTERVAL QUESTIONNAIRE

IS76. How much hard physical exercise is required in your main daily activity? Would you say a great deal, a moderate amount, a little, or none?

GREAT DEAL .....	1
MODERATE AMOUNT .....	2
A LITTLE .....	3
NONE .....	4

(SKIP BACK TO SECTION J, Q.1  
ON PAGE J-1 IN INTERVAL Q)

IS77. About how many hours per day do you perform hard physical work in your main daily activity?

HOURS PER DAY |\_\_|\_\_|

SKIP BACK TO SECTION J, Q.1 ON PAGE J-1 IN THE INTERVAL QUESTIONNAIRE

## **APPENDIX C**

### **Physical Examination**

#### **1992 Examiner's Handbook and Physical Examination Forms**

AIR FORCE HEALTH STUDY

EXAMINER'S HANDBOOK - 1992

6 January 1992

## Table of Contents

### A. General Instructions

### B. Conduct of the Examination

1. Overview
2. Psychological Battery
3. Electrocardiogram
4. Visual Acuity Screening and Intraocular Pressure
5. Pulmonary Function Testing
6. Screening Audiometry
7. Automated Blood Pressure Determination
8. Stool Examination for Occult Blood
9. Radiographic Examination
10. Doppler Testing of Peripheral Pulses
11. Assessment of Testicular Size
12. Measurement of Height and Weight
13. Vibrotactile Threshold Testing
14. Laboratory Procedures

## A. General Instructions

The Air Force Health Study is a multiyear effort to determine whether or not Air Force personnel who were engaged in the aerial spraying of herbicides in Vietnam have developed significant adverse health effects from that exposure. Detailed surveys of the world's literature have been used in designing the questionnaires, physical examination protocol, and laboratory procedure.

This phase of the study involves a follow-up cross-sectional assessment of the subject's health at the time of examination. It is important that examiners remain unaware of the subject's status as a RANCH HAND participant or as a comparison subject. The physician examiner is tasked to examine and objectively record his findings. The examining physician is not, and cannot be expected to arrive at any definitive diagnosis, since the full history and the laboratory results will not be available to him. Medical history, laboratory results and physical examination findings will be evaluated by an independent diagnostician employed by the contractor. This diagnostician will formulate diagnoses and differential diagnoses, if appropriate. Additional procedures to treat or evaluate emergency or urgent medical conditions will be directed only by this physician. In addition, he will present a detailed analysis and debriefing to the study subject and provide a copy of the analysis to the subject's personal physician, if authorized by the participant.

The physicians performing examinations for the study should be aware that the report of examination will become a permanent record. This report will be referred to not only in the near future as the cross-sectional data is analyzed, but also at the time of future follow-up phases of project. These examinations will define the health status of the subjects at a point in time and will establish the presence or absence of abnormal physical findings. After statistical review of the study groups, these findings may permit definition of a chronic effect due to exposure. An inaccurate examination may lead to fallacious study results in two ways: a presumed syndrome may be defined which does not in fact exist, or a syndrome which in fact exists may not be defined with enough validity to warrant further actions.

The examining physician is responsible for recording a complete and detailed report of the physical examination. In this role, the examining physician is tasked with collecting evidence of the presence or absence of physical signs of abnormality only. All items on the physical examination report form must be completed. It is imperative that the physician make such additional remarks as may be required to adequately describe existing physical and mental impairments. Since clinical endpoints have not been well defined following chronic exposure to Herbicide Orange, the examining physician and the diagnostician must not definitively ascribe

abnormalities to herbicide exposure during the course of the examination or during the patient's debriefing. If, during the examination, the physician discovers evidence of acute serious illness requiring immediate treatment, the normal emergency or urgent care procedure of the medical facility would apply.

The Air Force is not responsible for the cost of such care. If, during the examination, there is evidence of illness requiring nonemergency medical attention, the diagnostician should inform the subject and offer to forward, or have forwarded, pertinent information to the subject's physician. A clear record of any such advice and treatment should be recorded. The ultimate value of the study will lie in the collection of complete, accurate and, whenever possible, quantitative data permitting the most stringent and powerful statistical analysis. For this reason, the physical examination protocol requires exact measurements in many instances and the use of defined meanings of semiquantitative indicators in other places.

## **B. Conduct of the Examination**

### **1. OVERVIEW:**

Upon arrival at the examining facility, the subject should be briefed by the on-site monitor and a representative of the contractor on the appointments which have been arranged, their times, and locations. Consent forms covering all examination procedures shall be provided to each participant. The participant may still decline to participate in any individual portion of the examination, even if he previously signed a consent form.

The examination will be conducted in a manner identical to the process used in prior phases of the study and detailed in the subsequent sections of this handbook and in the Statement of Work.

- (a) Hemocult screening of three specimens
- (b) Blood pressure determination using automated equipment
- (c) Drawing of approximately 350 cc of blood from 500 volunteers to be processed and tested for levels of 2,3,7,8 TCDD. Blood will be drawn and processed in accordance with CDC procedures.

Vietnam Combat questionnaires will only be given to those subjects who did not participate in the 1985 or 1987 examination:

## 2. PSYCHOLOGICAL BATTERY

### a. General

This battery yields objective numerical data. The individual tests were chosen to insure an adequate analysis of one of the major alleged manifestations of herbicide toxicity. Each test either validates one of the other tests, or is considered to be a "definitive" test for analysis of a suspected psycho/neuropathic effect.

b. Specific Tests: Symptom checklist R-90, Millon Multiaxial Clinical Inventory, instruments will be used.

c. Examination Results: Forward all test materials as scored with annotations, interpretations, and impressions to the diagnostician for inclusion in the subject's examination file.

d. The psychologist in charge will conduct a one-to-one test debriefing with each subject to estimate the test-by-test and overall accuracy and validity of the test results and to discuss the results of the tests with the participant. A form for this purpose should be developed and should be filled out completely before forwarding, with the subject's raw data, to the diagnostician. If applicable, input from the testing technician is encouraged.

## 3. ELECTROCARDIOGRAM

a. A standard 12-lead scalar electrogram is required. If an arrhythmia is observed, a 1-minute rhythm strip is requested, in addition. This electrocardiogram will be accomplished after a minimum of 4-hour abstinence for smoking, food, and liquid intake.

b. Mounting: Mount the tracing in the usual manner of the laboratory for the recorder used.

c. Disposition: Forward the mounted tracing and rhythm strip, if obtained, to the diagnostician.

d. Interpretation: The electrocardiograms will be interpreted by cardiologists at the examination center. Contractor proposals to use automated ECG interpretation will be reviewed by the AF.

## 4. VISUAL ACUITY SCREENING AND INTRAOCULAR PRESSURE

Screening for near and distant visual acuity will be conducted using equipment and procedures selected by the contractor and approved by the Air Force. Intraocular pressure to screen for the presence of glaucoma will be conducted using tonometry



equipment, which does not come in contact with the cornea, selected by the contractor and approved by the Air Force.

5. PULMONARY FUNCTION TESTING

Standard evaluation of pulmonary function will be conducted on each participant following at least 4 hours abstinence from the use of tobacco products and will include as a minimum forced expiratory volume at 1 second, total vital capacity and the ratio of the two measurements.

6. SCREENING AUDIOMETRY

Screening of hearing will be conducted using equipment and procedures selected by the contractor and approved by the Air Force.

7. AUTOMATED BLOOD PRESSURE DETERMINATION

Pressure, and electronic device will be used to take all blood pressure, measurements. The device to be used will be selected by the contractor and approved by the Air Force.

8. STOOL EXAMINATION FOR OCCULT BLOOD

Three stool specimens from each participant will be tested for the presence of occult blood. Participants with positive tests will be advised and appropriate follow-up will be arranged.

9. RADIOGRAPHIC EXAMINATION

- a. Examination: A standard 14x17 in., standing, roentgenogram in the PA position.
- b. Interpretation: A board-certified radiologist at the examination center will interpret the roentgenogram and record the results and forward them to the diagnostician.

10. DOPPLER TESTING OF PERIPHERAL PULSES

A Doppler device shall be used to quantitatively measure the peripheral pulses. This procedure will be conducted after a minimum of 4 hour abstinence from smoking, food, and liquid intake.

11. ASSESSMENT OF TESTICULAR SIZE

Contractor will suggest method to assess testicular size.

12. MEASUREMENT OF HEIGHT AND WEIGHT

Determine height in meters and weight in kilograms on each participant. Determine the circumference of the waist at the navel and the circumference of the neck, all in centimeters.

13. VIBROTACTILE THRESHOLD TESTING

Measurement of the vibrotactile threshold in both great toes will be performed using the method of limits and techniques described in Section 4.2, reference 3.

14. LABORATORY PROCEDURES:

a. General Instructions; First Day: The patient should report in the morning in a fasting state having had water only after midnight.

b. General Instructions; Second Day: Serum hormone levels should be determined from specimens collected on the morning of the second day. Hormonal levels appear to oscillate rapidly in a random fashion. Distributions drift with time suggesting diurnal variations and some are affected by nonfasting state. Therefore, patients should be fasting prior to drawing blood for hormone analysis. Serum for dioxin determination will be drawn on 200 participants who consent to this procedure. Sufficient blood will be drawn to bring the total volume over the 2 days to 450 cc from these volunteers. Participants should also be informed that they should abstain from the use of alcohol for 24 hours prior to the scheduled start of the physical examination.

c. Specific Tests to be Performed

- (1) Hematocrit
- (2) Hemoglobin
- (3) Erythrocyte sedimentation rate
- (4) RBC indices
- (5) White blood cell count with differential

- (6) Platelet count
- (7) Urinalysis
- (8) Serum creatinine
- (9) Fasting plasma glucose
- (10) 2-Hour postprandial plasma glucose (accompanied by dipstick test for urine glucose)
- (11) Urobilinogen
- (12) High resolution serum protein electrophoresis to detect adherent B cell clones
- (13) Cholesterol & HDL cholesterol
- (14) Triglycerides
- (15) Bilirubin (total and direct)
- (16) AST
- (17) ALT
- (18) GGT
- (19) Alkaline phosphatase
- (20) LDH
- (21) Hepatitis A antibody
- \* (22) Hepatitis B surface antigen
- \* (23) Hepatitis B, core antibody
- \* (24) Hepatitis B, surface antibody
- \* (25) Hepatitis C antibody
- (26) Stool hemoccult (3 times)
- (27) Creatine phosphokinase (CPK)


\*Testing to be done by USAF on serum drawn and sent by the contractor

- (28) RPR; if positive, send serum to AL/AOELM, Brooks AFB
- (29) Lupus panel (contractor suggested tests)
- (30) Testosterone; total and free
- (31) Thyroid profile (T<sub>4</sub>, TSH)  
The technique for TSH must be sensitive to hypo- as well as hyperthyroid conditions.
- (32) Prothrombin time
- (33) Serum insulin
- (34) Alpha 1 C hemoglobin
- (35) Rheumatoid Factor
- (36) Serum dioxin determination (to be done by the Centers for Disease Control) on a subset of up to 500 participants selected by the Air Force
- (37) Serum amylase
- (38) Serum ACTH
- (39) Serum LH
- (40) Serum FSH
- (41) Serum glucagon
- (42) Serum estradiol
- (43) Sex hormone binding globulin (SHBG)
- \*\* (44) Serum proinsulin
- \*\* (45) Serum C peptide
- \*\* (46) Islet cell antibodies

\*\*To be done only on participants known to be diabetic (2-hr postprandial glucose > 140 mg/dl.)

d. The following immunological assays will be performed on blood from participants randomly selected using selection procedures outlined in Section 3.1.2.2.2 of the Statement of Work.

- (1) CD3 cells (total T lymphocytes)
- (2) CD4 cells (helper T cells)
- (3) CD5 cells (B cell subset)
- (4) CD8 cells (suppressor T cells)
- (5) CD14 cells (monocytes)
- (6) CD16/56 cells (NK cells)
- (7) CD20 cells (B cells)
- (8) CD25 cells (activated T cells)
- (9) CD45 cells (to be used as a quality control marker)
- (10) Contractor will suggest an approach to detect T cell clones.
- (11) Protein profile
- (12) Delayed hypersensitivity skin tests
- (13) Data from double-labeled cells will be collected for the following combinations:
  - (a) CD3 with CD 25 (refinement of activated T cells)
  - (b) CD5 with CD 20 (B cell subset)
  - (c) CD4/CD8 ratio
  - (d) CD4 with CD8 (abnormal or early T cells)
  - (e) CD3 with CD 16/56 (NK-like T cells)

PARTICIPANT LABEL	CASE NUMBER										GROUP NUMBER										
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
	0	1	2	3	4	5	6	7	8	9	EXAMINER I.D. NO.										
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	

**FORM AFHS-1 FAMILY AND PERSONAL HISTORY**

**YEAR 10 FOLLOW UP**

FAMILY HISTORY											
DARKEN NONE OR EACH KNOWN OCCURRENCE OF:	SELF	RELATIVES						CURRENT FAMILY			NONE
		GRANDPARENTS		PARENTS		SIBLINGS		CHILDREN			
		MATERNAL	PATERNAL	MOTHER	FATHER	SISTERS	BROTHERS	WIFE	GIRLS	BOYS	
1. ADOPTED	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. DIABETES	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. EPILEPSY	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. STROKE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. HIGH BLOOD PRESSURE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. HARDENING OF ARTERIES	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. HEART TROUBLE/ANGINA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. BLOOD DISEASE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. LEUKEMIA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. LUNG CANCER	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. OTHER CANCER	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. SMOKING HISTORY	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. STOMACH TROUBLE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. NERVOUS TROUBLE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. SLEEPING TROUBLE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. ALCOHOLISM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. ALZHEIMER'S DISEASE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. PARKINSON'S DISEASE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. MENTAL DISTURBANCE(S)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. ARTHRITIS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. BIRTH DEFECTS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. ALLERGIES	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. OTHER MEDICAL TROUBLES	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

☐ ☐ COMMENTS?

SUMMARY OF GENERAL HEALTH QUALITY THROUGHOUT LIFE											
RELATION	LIVE BIRTHS		LIFETIME HEALTH IS/WAS?				<input type="radio"/> <input type="radio"/> COMMENTS?				
	# GIRLS	# BOYS	EXCELLENT	GOOD	FAIR	POOR					
NATURAL MOTHER			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
NATURAL FATHER			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
SELF			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
SPOUSE 1 <input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
SPOUSE 2 <input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>FAMILY MEMBERS</b>	<b>AGE IN YEARS AT PRESENT IF ALIVE?</b>	<b>AGE IN YEARS AT TIME OF DEATH?</b>	<b>IF DECEASED—CAUSE OF DEATH</b>								
<b>B = BROTHER S = SISTER C = CHILD</b>	<b>SEX F M</b>		<b>CANCER HEART</b>	<b>ACCIDENT STROKE</b>	<b>OTHER SUICIDE</b>	<b>?</b>					
MOTHER <input checked="" type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
FATHER <input checked="" type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
(B)(S)(C) (F)(M)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

# SUMMARY OF TREATMENTS

MONTH/YEAR OF LAST EXAM

- (Y) (N) WERE ANY NEW ABNORMALITIES FOUND AT YOUR LAST PHYSICAL EXAMINATION?
- (Y) (N) ARE YOU CURRENTLY RECEIVING ANY MEDICATIONS OR TREATMENTS?
- (Y) (N) HAVE YOU EVER TAKEN ANY MEDICATIONS OR TREATMENTS FOR LONGER THAN 1 MONTH?
- (Y) (N) HAVE YOU EVER HAD A SERIOUS ILLNESS?
- (Y) (N) HAVE YOU EVER HAD A SERIOUS INJURY?
- (Y) (N) HAVE YOU EVER HAD A SURGICAL OPERATION?

HOW MANY TIMES HAVE YOU BEEN HOSPITALIZED? 0 1 2 3 4 5 6 7 8 9 or more

YEAR	AGE	DESCRIPTION OF OPERATION/INJURY/ILLNESS	MEDICATION/TREATMENT

# PERSONAL HISTORY

DARKEN THE (Y) BUBBLE IF YOU HAVE EVER EXPERIENCED ONE OF THE FOLLOWING CONDITIONS, OTHERWISE DARKEN (N).

YES NO	YES NO	YES NO	
(Y) (N) CATARACTS	(Y) (N) HEPATITIS	(Y) (N) MINOR ARTHRITIS	ANY REPEATING OCCURRENCES IN THE LAST YEAR?
(Y) (N) TONSILLITIS	(Y) (N) WORMS	(Y) (N) RHEUMATOID ARTHRITIS	
(Y) (N) SINUSITIS	(Y) (N) COLITIS	(Y) (N) SEVERE ARTHRITIS	
(Y) (N) GOITER	(Y) (N) HEMORRHOIDS	(Y) (N) SYSTEMIC LUPUS	
(Y) (N) HAY FEVER	(Y) (N) KIDNEY STONES	ERYTHEMATOSUS	YES NO
(Y) (N) ASTHMA	(Y) (N) KIDNEY TROUBLE	(Y) (N) SCLERODERMA	(Y) (N) PNEUMONIA
(Y) (N) BRONCHITIS	(Y) (N) BLADDER TROUBLE	(Y) (N) RHEUMATIC FEVER	(Y) (N) KIDNEY INFECTIONS
(Y) (N) PLEURISY	(Y) (N) PROSTATE TROUBLE	(Y) (N) CANCER OR TUMOR	(Y) (N) SKIN BOILS
(Y) (N) PNEUMONIA	(Y) (N) SYPHILIS	(Y) (N) VARICOSE VEINS	(Y) (N) OTHER INFECTIONS
(Y) (N) TUBERCULOSIS	(Y) (N) GONORRHEA	(Y) (N) PHLEBITIS	DESCRIBE OTHER SKIN TROUBLE OR INFECTIONS
(Y) (N) HEART TROUBLE	(Y) (N) FAINTING	(Y) (N) HERNIA (RUPTURE)	
(Y) (N) STOMACH TROUBLE	(Y) (N) FITS OR CONVULSIONS	(Y) (N) ANEMIA	
(Y) (N) ULCERS	(Y) (N) DEPRESSION	(Y) (N) POLIO	
(Y) (N) GALLSTONES	(Y) (N) NERVOUS BREAKDOWN	(Y) (N) MUMPS	
(Y) (N) JAUNDICE	(Y) (N) PARALYSIS	(Y) (N) MALARIA	
(Y) (N) LIVER TROUBLE	(Y) (N) MUSCLE PAIN	(Y) (N) GOUT	
(Y) (N) SKIN TROUBLE	(Y) (N) MUSCLE WEAKNESS	(Y) (N) DIABETES	
(Y) (N) ACNE	(Y) (N) NUMBNESS	(Y) (N) MEASLES	
(Y) (N) EXCESS HAIR GROWTH	(Y) (N) LOSS OF SENSATION	(Y) (N) DYSENTERY	
(Y) (N) OTHER SKIN TROUBLE	(Y) (N) LOSS OF SEX DRIVE		

(Y) (N) COMMENTS?

FORM QA AUDIT BY:

1 2 3 4 5 6

DATE

INITIALS

## How often do you:

	never	less than 12 times/year	1-4 times/month	2-3 times/week	daily
use non-prescription stimulants to stay alert (no-doze, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use non-prescription sleep aids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use alcohol to help me sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
take tryptophan to help me sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
take vitamins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate below how much you consume on a weekly basis each of the following :  
(If your intake is less than once a week for an item than put a "0" in the space provided)

_____ to _____ 12 oz. cups caffeinated coffee a week	_____ to _____ cigarettes a week
_____ to _____ 12 oz. cups decaf coffee a week	_____ to _____ cigars a week
_____ to _____ 12 oz. cups caffeinated tea a week	_____ to _____ bowls of pipe tobacco a week
_____ to _____ 12 oz. cups decaf tea a week	_____ to _____ pinches of chew a week
_____ to _____ 12 oz. cans sugar cola a week	_____ to _____ 12 oz. cans of regular beer a week
_____ to _____ 12 oz. cans decaf cola a week	_____ to _____ 12 oz. cans of light beer a week
_____ to _____ 12 oz. cans diet cola a week	_____ to _____ 4 oz. glasses of wine a week
_____ to _____ 12 oz. cans decaf diet cola a week	_____ to _____ mixed drinks a week
_____ to _____ 12 oz. cups bottled water a week	_____ to _____ oz. unmixed liquor a week
_____ to _____ 12 oz. cups tap water a week	

Which of the following do you use most often  
in your coffee? (Choose one from each column)

- |                                 |  |
|---------------------------------|--|
| <input type="radio"/> sugar     | <input type="radio"/> cream            |
| <input type="radio"/> saccharin | <input type="radio"/> milk             |
| <input type="radio"/> equal     | <input type="radio"/> powdered creamer |
| <input type="radio"/> n/a       | <input type="radio"/> n/a              |

Which one of the three following food  
types do you prefer most?

- ☐ steak, salty foods  
☐ bread, sweets  
☐ dairy products

Which of the following do you use most often  
in your tea? (Choose one from each column)

- |                                 |  |
|---------------------------------|--|
| <input type="radio"/> sugar     | <input type="radio"/> cream            |
| <input type="radio"/> saccharin | <input type="radio"/> milk             |
| <input type="radio"/> equal     | <input type="radio"/> powdered creamer |
| <input type="radio"/> n/a       | <input type="radio"/> n/a              |

When does your highest energy period  
occur? (choose one of the following)

- ☐ energetic all day  
☐ following meals (especially breakfast and dinner)  
☐ first thing in the morning

Yes No

☐ ☐ Do you have any physical or nervous complaints or concerns?

☐ ☐ Do you have any allergies or severe reactions to:  
medicines, foods, plants, chemicals, etc? Please specify below.

Comments :

Form QA audit done by :  
ID# Initials Date

① ② ③ ④ ⑤ ⑥



PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9



FORM AFHS-1B

## FAMILY AND PERSONAL HISTORY CONTINUED

YEAR 10  
FOLLOWUP

### GENERAL HEALTH QUALITY OF FAMILY MEMBERS (CONTINUED)

**PLEASE NOTE:** Only add those family members who you were unable to record on the orange sheet because of a lack of space - you do not have to repeat any relatives.

Family members B = Brother S = Sister C = Child	Sex F M	Age in years		If deceased - what was the cause of death ?							
		At present if alive	At time of death	heart	cancer	stroke	accident	suicide	other	?	
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										
B S C	F M										

Comments :

My natural mother gave birth to \_\_\_\_\_ boys and \_\_\_\_\_ girls. I was the \_\_\_\_\_th child born.  
I have sired \_\_\_\_\_ boy children and \_\_\_\_\_ girl children.

### SUMMARY OF WORK AND LEISURE HOURS

I \_\_\_\_\_ will retire/ \_\_\_\_\_ did retire from military service on : \_\_\_\_\_ at age \_\_\_\_\_ years.

I \_\_\_\_\_ will retire/ \_\_\_\_\_ did retire from work as a civilian on: \_\_\_\_\_ at age \_\_\_\_\_ years.  
(month/year)

I sleep \_\_\_\_\_ hours per night during the workweek and \_\_\_\_\_ hours on other nights.

I take naps \_\_\_\_\_ times per week for an average of \_\_\_\_\_ hours per week.

**If currently employed, please complete the following:**

- I work \_\_\_\_\_ hours per day \_\_\_\_\_ days per week.
- I average \_\_\_\_\_ hours paid overtime per week \_\_\_\_\_ hours unpaid overtime per week.
- I receive \_\_\_\_\_ vacation days per year plus \_\_\_\_\_ paid holidays per year.

### SUMMARY OF BODY WEIGHT CHANGES

My current weight range is between \_\_\_\_\_ lbs and \_\_\_\_\_ lbs.

My preferred weight range is between \_\_\_\_\_ lbs and \_\_\_\_\_ lbs.

The most I ever weighed was \_\_\_\_\_ lbs and that was between the ages of \_\_\_\_\_ and \_\_\_\_\_ years.

The most fit I have ever been was between ages \_\_\_\_\_ and \_\_\_\_\_ years, when

I weighed \_\_\_\_\_ lbs and was \_\_\_\_\_ ft \_\_\_\_\_ inches tall at the time.

The most weight I ever lost during one period was \_\_\_\_\_ lbs due to :

☐ Illness/Injury ☐ Stress ☐ Dieting ☐ Exercise ☐ Depression ☐ Other

Comments :

PARTICIPANT LABEL

CASE NUMBER

GROUP NUMBER



DIAGNOSTICIAN ID NO.

FORM AFHS-2A

## REVIEW OF SYSTEMS

YEAR 10  
FOLLOW UP

Please ANSWER ALL QUESTIONS. If in doubt, GUESS Yes or No.

If you are bothered by or concerned about the following conditions, darken the (Y) (YES) Bubble.  
Otherwise mark (N) for NO.

The Doctor or Nurse will ask about the details later.

## QUESTIONNAIRE

HAVE YOU COMMENTED BELOW? (Y) (N)

(Y) (N) ANY FOODS THAT TEND TO  
DISAGREE (WHICH ONES?)

(Y) (N) FREQUENT ITCH OR RASH?  
(WHERE/WHEN?)

(Y) (N) SWELLING, LUMP OR SORENESS  
ANYWHERE ON BODY? (WHERE?)

(Y) (N) NUMBNESS OR TINGLING?  
(WHERE?)

(Y) (N) TWITCHING MUSCLES?  
(WHERE?)

HOW MANY TIMES DO YOU  
WAKE FROM SLEEP TO URINATE?

0 1 2 3 4 5 6 7 8 9 OR MORE

YES NO

- (Y) (N) 1. SEVERE HEADACHES OR HEAD PAINS  
(Y) (N) 2. ANY DISTURBANCE IN VISION  
(Y) (N) 3. PAIN OR DISCOMFORT IN EYES  
(Y) (N) 4. WEAR GLASSES (OR CONTACT LENSES?)  
(Y) (N) 5. CONSTANT NOISE IN EARS  
(Y) (N) 6. HARD OF HEARING  
(Y) (N) 7. EAR ACHE WITH COLDS  
(Y) (N) 8. EAR ACHE WITH PLANE FLIGHTS  
(Y) (N) 9. CHRONIC RUNNING EARS  
(Y) (N) 10. CHRONIC STUFFY OR RUNNY NOSE  
(Y) (N) 11. NEED TO USE NOSE DROPS FREQUENTLY  
(Y) (N) 12. BAD NOSE BLEEDS AT TIMES  
(Y) (N) 13. FREQUENT SEVERE COLDS OR SORE THROAT  
(Y) (N) 14. ANY KNOWN DENTAL PROBLEMS  
(Y) (N) 15. SORENESS OR BLEEDING OF GUMS  
(Y) (N) 16. MORE THAN A YEAR SINCE TEETH CHECKED  
(Y) (N) 17. SORE MOUTH OR TONGUE  
(Y) (N) 18. GOITER OR THYROID TROUBLE  
(Y) (N) 19. THYROID TEST TOO HIGH  
(Y) (N) 20. THYROID TEST TOO LOW  
(Y) (N) 21. FEELING OF LUMP IN THE THROAT  
(Y) (N) 22. NEED TO TAKE THYROID MEDICINE  
(Y) (N) 23. HOARSENESS AT TIMES  
(Y) (N) 24. RECENT OR CHRONIC COUGH  
(Y) (N) 25. CHRONIC COUGHING UP OF SPUTUM  
(Y) (N) 26. EVER COUGHING UP OF SPUTUM  
(Y) (N) 27. ACHE ALL OVER  
(Y) (N) 28. HAVING CHILLS OR FEVER  
(Y) (N) 29. SEVERE SOAKING NIGHT SWEATS  
(Y) (N) 30. LIVED WITH ANYONE HAVING T.B.

Q1 - 60 COMMENTS? → (Y) (N)

YES NO

- (Y) (N) 31. WORRIED ABOUT YOUR HEART  
(Y) (N) 32. BLOOD PRESSURE TOO HIGH  
(Y) (N) 33. BLOOD PRESSURE TOO LOW  
(Y) (N) 34. PAINS IN HEART OR CHEST  
(Y) (N) 35. POUNDING OR SKIPPING OF HEART  
(Y) (N) 36. HEART STARTS RACING SUDDENLY  
(Y) (N) 37. SHORTNESS OF BREATH OR WHEEZING  
(Y) (N) 38. TROUBLE GETTING A DEEP BREATH  
(Y) (N) 39. SWELLING ANKLES  
(Y) (N) 40. LEG CRAMPS IN BED OR SITTING STILL  
(Y) (N) 41. LEG CRAMPS WHILE WALKING  
(Y) (N) 42. PAIN OR TROUBLE WITH SWALLOWING  
(Y) (N) 43. POOR APPETITE RECENTLY  
(Y) (N) 44. POOR APPETITE ALWAYS  
(Y) (N) 45. NAUSEA OR VOMITING  
(Y) (N) 46. VOMITING OF BLOOD  
(Y) (N) 47. BELCHING, BLOATING OR INDIGESTION  
(Y) (N) 48. YELLOW SKIN OR EYES (JAUNDICE)  
(Y) (N) 49. BURNING OR HUNGER PAINS IN STOMACH  
(Y) (N) 50. USE ANTACIDS FOR STOMACH BURNING  
(Y) (N) 51. SORENESS OR PAIN IN STOMACH, ABDOMEN  
(Y) (N) 52. SUSPECT ULCERS OR STOMACH TROUBLE  
(Y) (N) 53. CRAMPS IN STOMACH OR LOW DOWN  
(Y) (N) 54. LOOSE BOWELS OR DIARRHEA  
(Y) (N) 55. BLACK OR TARRY STOOLS (BOWEL MOVEMENT)  
(Y) (N) 56. FRESH OR BRIGHT BLOOD WITH STOOLS  
(Y) (N) 57. MUCUS (SLIME OR PHLEGM) IN STOOLS  
(Y) (N) 58. CONSTIPATION  
(Y) (N) 59. USE LAXATIVES FREQUENTLY  
(Y) (N) 60. USE ENEMAS FREQUENTLY

PLEASE DO NOT MARK IN THIS SPACE

QUESTIONNAIRE (CONTINUED)

YES NO

- ☐ ☐ 61. RECENT CHANGE IN BOWEL HABITS
- ☐ ☐ 62. RECTAL TROUBLE OR PAIN
- ☐ ☐ 63. PAIN IN THE KIDNEY REGION
- ☐ ☐ 64. BLOOD OR PUS IN URINE
- ☐ ☐ 65. ALBUMIN IN URINE
- ☐ ☐ 66. SUGAR IN URINE
- ☐ ☐ 67. SPELLS OF FREQUENT URINATION
- ☐ ☐ 68. SEVERE BURNING OR PAIN ON URINATION
- ☐ ☐ 69. PAINS OVER BLADDER OR LOW DOWN
- ☐ ☐ 70. TROUBLE STARTING URINE
- ☐ ☐ 71. URINARY STREAM HAS BECOME WEAK
- ☐ ☐ 72. HARD TO EMPTY BLADDER COMPLETELY
- ☐ ☐ 73. LOSE CONTROL OF PASSING URINE
- ☐ ☐ 74. PAINFUL OR SORE GENITALS (PRIVATES)
- ☐ ☐ 75. SWOLLEN OR PAINFUL JOINTS
- ☐ ☐ 76. STIFFNESS OF MUSCLES OR JOINTS
- ☐ ☐ 77. SEVERE PAINS IN ARMS OR LEGS
- ☐ ☐ 78. PAINFUL FEET
- ☐ ☐ 79. BACKACHE
- ☐ ☐ 80. PAINS IN NECK
- ☐ ☐ 81. EASY TO SUNBURN
- ☐ ☐ 82. SUBJECT TO ACNE
- ☐ ☐ 83. SUBJECT TO BOILS OR INFECTION
- ☐ ☐ 84. SUBJECT TO ATHLETE'S FOOT, SKIN FUNGUS
- ☐ ☐ 85. SUBJECT TO HIVES OR SKIN REACTIONS
- ☐ ☐ 86. EASY BLEEDING OR BRUISING
- ☐ ☐ 87. MOLE OR SORE WHICH IS NOT HEALING
- ☐ ☐ 88. SEVERE DIZZINESS
- ☐ ☐ 89. GENERALIZED WEAKNESS
- ☐ ☐ 90. MUSCLE WEAKNESS

Q61 - 118 COMMENTS? → ☐ ☐

YES NO

- ☐ ☐ 91. NAIL BITING
- ☐ ☐ 92. SLEEP WALKING
- ☐ ☐ 93. BED WETTING AFTER AGE 12
- ☐ ☐ 94. CHRONICALLY TIRED OR OVERWORKED
- ☐ ☐ 95. IRREGULAR LIVING HABITS
- ☐ ☐ 96. CAN'T GO TO SLEEP OR STAY ASLEEP
- ☐ ☐ 97. NEARLY ALWAYS IN POOR HEALTH
- ☐ ☐ 98. CONSIDERED TO BE A NERVOUS PERSON
- ☐ ☐ 99. FROM SICKLY OR NERVOUS FAMILY
- ☐ ☐ 100. TREMBLE AND SWEAT EASILY
- ☐ ☐ 101. HAVE TROUBLE MAKING UP YOUR MIND
- ☐ ☐ 102. EASILY MIXED UP OR CONFUSED
- ☐ ☐ 103. CLUMSY OR HAVE FREQUENT ACCIDENTS
- ☐ ☐ 104. FEEL SAD, LONELY OR DEPRESSED
- ☐ ☐ 105. CRY OFTEN
- ☐ ☐ 106. WISH I WERE DEAD
- ☐ ☐ 107. WORRY CONTINUALLY
- ☐ ☐ 108. UPSET BY LITTLE THINGS
- ☐ ☐ 109. A PERFECTIONIST
- ☐ ☐ 110. SENSITIVE OR FEELINGS EASILY HURT
- ☐ ☐ 111. OFTEN MISUNDERSTOOD
- ☐ ☐ 112. OFTEN ACT ON SUDDEN IMPULSE
- ☐ ☐ 113. EASILY ANGERED OR HAVE VIOLENT RAGES
- ☐ ☐ 114. FREQUENTLY KEYED UP AND JITTERY
- ☐ ☐ 115. EASILY SCARED BY SUDDEN NOISE
- ☐ ☐ 116. HAVE BAD DREAMS OR THOUGHTS
- ☐ ☐ 117. SUSPECT A SERIOUS DISEASE OR CANCER
- ☐ ☐ 118. HAVING TROUBLE GETTING ALONG WITH SOMEONE AT HOME OR AT WORK

REVIEWER'S COMMENTS:

FORM QA AUDIT BY:

ID 1 2 3 4 5 6

DATE

INITIALS

**YEAR 10  
FOLLOW UP**

☐ Y ☐ N COMMENTS?

## VITAL SIGNS

**Y N COMMENTS?**

**Y N COMMENTS?**

## CODES

(N) = NO OR NONE (X) = COULD NOT EXAMINE  
 (Y) = YES (L) = LEFT  
 (R) = REFUSED (R) = RIGHT

# PHYSICAL EXAMINATION

(FORM 3 PART 1 SIDE 2)

## ENT/NECK

## ENT ARE

☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

TYMPANIC MEMBRANE INTACT?  
 EAR IRRIGATED TO REMOVE WAX?  
 NASAL MUCOSA ULCERATED?

## LEFT

(N) (Y) (X)  
 (N) (Y)  
 (N) (Y) (X)

## RIGHT

(N) (Y) (X)  
 (N) (Y)  
 (N) (Y) (X)

(Y) (N) COMMENTS?

## NECK AREA IS

☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

PAROTID GLAND ENLARGED?  
 CAROTID BRUIT PRESENT?  
 CAROTID PULSE IS:

(N) (Y)  
 (N) (Y)  
 (N) (D) (A)

(N) (Y)  
 (N) (Y)  
 (N) (D) (A)

(N = NORMAL D = DIMINISHED A = ABSENT)

## THYROID GLAND

PALPABLE  
 (N) (Y)

ENLARGED  
 (N) (Y)

NODULES  
 (N) (Y)

TENDER  
 (N) (Y)

OTHER  
 (N) (Y)

(Y) (N) COMMENTS?

## THORAX AND LUNGS

☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

(Y) (N) ASYMMETRICAL EXPANSION

(Y) (N) HYPERRESONANCE

(Y) (N) DULLNESS

(Y) (N) WHEEZES

(Y) (N) RALES  
 ← (NOTE LOCATION)

(Y) (N) SUSPECTED COPD  
 ← (DESCRIBE)

(Y) (N) COMMENTS?

## WAIST

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

## CIRCUMFERENCE (CM)

## CHEST AT NIPPLE LEVEL

EXPIRATION		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

## INSPIRATION

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

## NECK

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

## HEART

## HEART EXAM IS:

☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

## MURMUR?

☐ NO  
☐ YES, PROBABLY FUNCTIONAL  
☐ YES, SUSPECT ORGANIC  
☐ YES, ORGANIC

INDICATE CHEST AREA(S)  
 TO WHICH MURMUR WAS  
 PROJECTED MOST INTENSELY.

(MARK Ns IF NO MURMUR)

ABNORMAL HEART SOUNDS?

S1 (N) (Y) S2 (N) (Y) S3 (N) (Y) S4 (N) (Y)

(Y) (N) DISPLACED APICAL IMPULSE?

(Y) (N) PRECORDIAL THRUST?


(Y) (N) HEART COMMENTS?

	SYSTOLIC		DIASTOLIC	
AORTIC	(N) (Y)	(N) (Y)	(N) (Y)	(N) (Y)
PULMONIC	(N) (Y)	(N) (Y)	(N) (Y)	(N) (Y)
APEX	(N) (Y)	(N) (Y)	(N) (Y)	(N) (Y)
LLSB	(N) (Y)	(N) (Y)	(N) (Y)	(N) (Y)

FORM QA AUDIT DONE BY:

ID NUMBER:  
 1 2 3 4 5 6

INITIALS DATE

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

# FORM AFHS-3B PHYSICAL EXAMINATION (PART 2)

YEAR 10  
FOLLOW-UP

## ABDOMEN

Y N ABDOMEN ABNORMALITY COMMENTS?

YES NO  
☐ ☐ HEPATOMEGALY  
☐ ☐ LIVER TENDERNESS  
☐ ☐ SPLENOMEGALY  
☐ ☐ SPLEEN TENDERNESS  
☐ ☐ OTHER MASS?

TOTAL LIVER SPAN

0 1 2 3 CM  
0 1 2 3 4 5 6 7 8 9

Y N MASS SIZE, UNITS, LOCATION, TYPE, COMMENT?

## EXTREMITIES

UPPER LIMBS	AMPUTATION(S) N L R	PITTING EDEMA N L R	NON-PITTING EDEMA N L R	CLUBBED NAILS N L R	VARICOSITIES N L R	TOE HAIR LOSS N L R
(N = NONE OR NORMAL FOR BOTH LIMBS, L = LEFT LIMB ONLY, R = RIGHT LIMB ONLY)						
LOWER LIMBS	N L R	N L R	N L R	N L R	N L R	N L R

EXTREMITY EXAM WAS: ☐ NORMAL ☐ ABNORMAL ☐ REFUSED

Y N DESCRIBE ABSENCES &/OR ABNORMALITIES

## PERIPHERAL PULSES

N L R FEMORAL BRUIT(S) PRESENT?

(N = NONE, L = LEFT, R = RIGHT)

	RADIAL		FEMORAL		POPLITEAL		DORSALIS PEDIS		POSTERIOR TIBIAL	
	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
NORMAL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DIMINISHED	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ABSENT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COULD NOT EXAMINE	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

Y N PULSE COMMENTS

## MUSCULATURE

	STRAIGHT LEG RAISE ABNORMAL?	ANY WEAKNESS NOTED?	ANY TENDERNESS NOTED?	ANY ATROPHY NOTED?	ABNORMAL CONSISTENCY?	OTHER ABNORMALITY?	NO	YES	CNE	Y N COMMENTS?
<input type="radio"/> NORMAL							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<input type="radio"/> ABNORMAL							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<input type="radio"/> REFUSED							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
							<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	

## SPINE

	ANY SCOLIOSIS NOTED?	ANY KYPHOSIS NOTED?	PELVIC TILT NOTED?	RANGE OF MOTION?	NO	YES	CNE	SPINAL TENDERNESS	Y N COMMENTS?
<input type="radio"/> NORMAL					<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> NONE NOTED	
<input type="radio"/> ABNORMAL					<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> CERVICAL AREA	
<input type="radio"/> REFUSED					<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> THORACIC AREA	
					<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> LUMBAR AREA	
					<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> SACRAL AREA	



# GENITOURINARY EXAM

(PE PART 2 CONTINUED)

## GENITOURINARY EXAM

- ☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

## TESTES

- NORMAL  
 LEFT ☐  
 RIGHT ☐

- ENLARGED  
☐  
☐

- NODULE  
☐  
☐

- ATROPHIC  
☐  
☐

- ABSENT  
☐  
☐

- OTHER  
☐  
☐

YES NO REFUSED

- ☐ ☐ ☐ RIGHT INGUINAL HERNIA?  
☐ ☐ ☐ LEFT INGUINAL HERNIA?  
☐ ☐ ☐ SCROTAL MASS PRESENT?

YES NO REFUSED

- ☐ ☐ ☐ VARICOCELE  
☐ ☐ ☐ EPIDIDYMAL ABNORMALITY  
☐ ☐ ☐ SCROTAL MASS SIZE  
 (DIAMETER IN CM)

Y N COMMENTS:

## RECTAL EXAM

- RECTAL EXAM  
☐ NORMAL  
☐ ABNORMAL  
☐ REFUSED

- HEMORRHOIDS  
 EXTERNAL  
 INTERNAL

- NONE APPARENT  
☐  
☐

- REFUSED  
☐  
☐

- BLEEDING  
☐  
☐

- THROMBOSED  
☐  
☐

- OTHER  
☐  
☐

YES NO REFUSED

- ☐ ☐ ☐ PROSTATIC ENLARGEMENT?  
☐ ☐ ☐ RECTAL MASS(ES)?

Y N COMMENTS?

## LYMPH NODES

- ☐ NORMAL

- CERVICAL  
 OCCIPITAL  
 SUPRACLAVICULAR  
 AXILLARY  
 EPITROCHLEAR  
 INGUINAL  
 FEMORAL

NORMAL

ENLARGED

TENDER

HARD

FIXED

CONFLUENT

OTHER

- ☐ ABNORMAL

- ☐ REFUSED

Y N COMMENTS:

## SUMMARY OF FOLLOW-UP INDICATED OR RECOMMENDED

### SUMMARY OF FINDINGS ENTIRE EXAM WAS:

- ☐ ALL NORMAL  
☐ NORMAL WITH NOTED VARIATIONS  
☐ ABNORMAL AS SUMMARIZED  
☐ REFUSED ENTIRE EXAM

- ☐ ☐ ANY OTHER TESTS INDICATED?  
☐ ☐ ANY OTHER TESTS ORDERED?  
☐ ☐ OTHER TESTS DESCRIBED?

Y N COMMENTS:

FORM QA AUDIT BY:


1 2 3 4 5 6

INITIALS:

PRINTED NAME OF EXAMINING PHYSICIAN

INITIALS / DATE

DATE:

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

# FORM AFHS-4 DERMATOLOGIC EXAMINATION AND BIOPSY

YEAR 10  
FOLLOW UP

FOR POSITIVE FINDINGS NOTE TYPE AND LOCATION ON ANATOMIC CHART  
AND DARKEN THE APPROPRIATE CIRCLE BELOW

## SKIN

EXAM WAS: ☐ NORMAL ☐ ABNORMAL ☐ REFUSED ANATOMICAL CHART USED? ☐ Y ☐ N

YES	NO	TYPE		YES	NO	TYPE	
<input type="radio"/>	<input type="radio"/>	1	COMEDONES	<input type="radio"/>	<input type="radio"/>	13	ACTINIC KERATOSES
<input type="radio"/>	<input type="radio"/>	2	ACNEIFORM LESIONS	<input type="radio"/>	<input type="radio"/>	14	PETECHIAE
<input type="radio"/>	<input type="radio"/>	3	ACNEIFORM SCARS	<input type="radio"/>	<input type="radio"/>	15	ECCHYMOSES
<input type="radio"/>	<input type="radio"/>	4	DEPIGMENTATION	<input type="radio"/>	<input type="radio"/>	16	CONJUNCTIVAL ABNORMALITY
<input type="radio"/>	<input type="radio"/>	5	INCLUSION CYSTS	<input type="radio"/>	<input type="radio"/>	17	ORAL MUCOSAL ABNORMALITY
<input type="radio"/>	<input type="radio"/>	6	CUTIS RHOMBOIDALIS	<input type="radio"/>	<input type="radio"/>	18	FINGER NAIL ABNORMALITY
<input type="radio"/>	<input type="radio"/>	7	HYPERPIGMENTATION	<input type="radio"/>	<input type="radio"/>	19	TOE NAIL ABNORMALITY
<input type="radio"/>	<input type="radio"/>	8	JAUNDICE	<input type="radio"/>	<input type="radio"/>	20	DERMATOGRAPHIA
<input type="radio"/>	<input type="radio"/>	9	SPIDER ANGIOMATA	<input type="radio"/>	<input type="radio"/>	21	SUSPECTED BASAL CELL CARCINOMA
<input type="radio"/>	<input type="radio"/>	10	PALMAR ERYTHEMA	<input type="radio"/>	<input type="radio"/>	22	SUSPECTED SQUAMOUS CELL CARCINOMA
<input type="radio"/>	<input type="radio"/>	11	SUSPECTED MELANOMA	<input type="radio"/>	<input type="radio"/>	23	NEVUS
<input type="radio"/>	<input type="radio"/>	12	PALMAR KERATOSES	<input type="radio"/>	<input type="radio"/>	24	VITILIGO
				<input type="radio"/>	<input type="radio"/>	25	OTHER ABNORMALITY(IES)

## SKIN BIOPSY

☐ BIOPSY NOT INDICATED ☐ BIOPSY REFUSED ☐ # SAMPLES 0 1 2 3 4 5 6 7 8 9  
☐ BIOPSY INDICATED, IF SO ☐ BIOPSY PERFORMED, IF SO ☐ YES ☐ CONSENT FORM OBTAINED  
☐ REFERRED

SAMPLE # TYPE AND LOCATION CODE(S)

☐ Y ☐ N COMMENT(S)/SUSPECTED DIAGNOSIS

## PHYSICAL FEATURES

☐ Y ☐ N ☐ X WEARING COLORED OR TINTED CONTACTS?

**EYE COLOR**

LEFT	RIGHT
BROWN <input type="radio"/>	<input type="radio"/>
HAZEL <input type="radio"/>	<input type="radio"/>
GREEN <input type="radio"/>	<input type="radio"/>
GREY <input type="radio"/>	<input type="radio"/>
BLUE <input type="radio"/>	<input type="radio"/>
ABSENT <input type="radio"/>	<input type="radio"/>

**HAIR COLOR**

SOLID COLOR → GREYS

BLACKS (1) (34) (44) (51)  
 BROWNS (5) (11) (36) (38) (39) (48) (54)  
 BLONDS (14) (103) (107)  
 REDS (33) (29)  
 BALD (0) (X) NOT NEEDED

**SKIN COLOR**

NN

X 1 2 3 4 5 6 7 8 9 10 11 12

☐ Y ☐ N COMMENTS?

☐ Y ☐ N IS HAIR DYED OR ALTERED?

PRINTED NAME OF EXAMINING PHYSICIAN


INITIALS / DATE

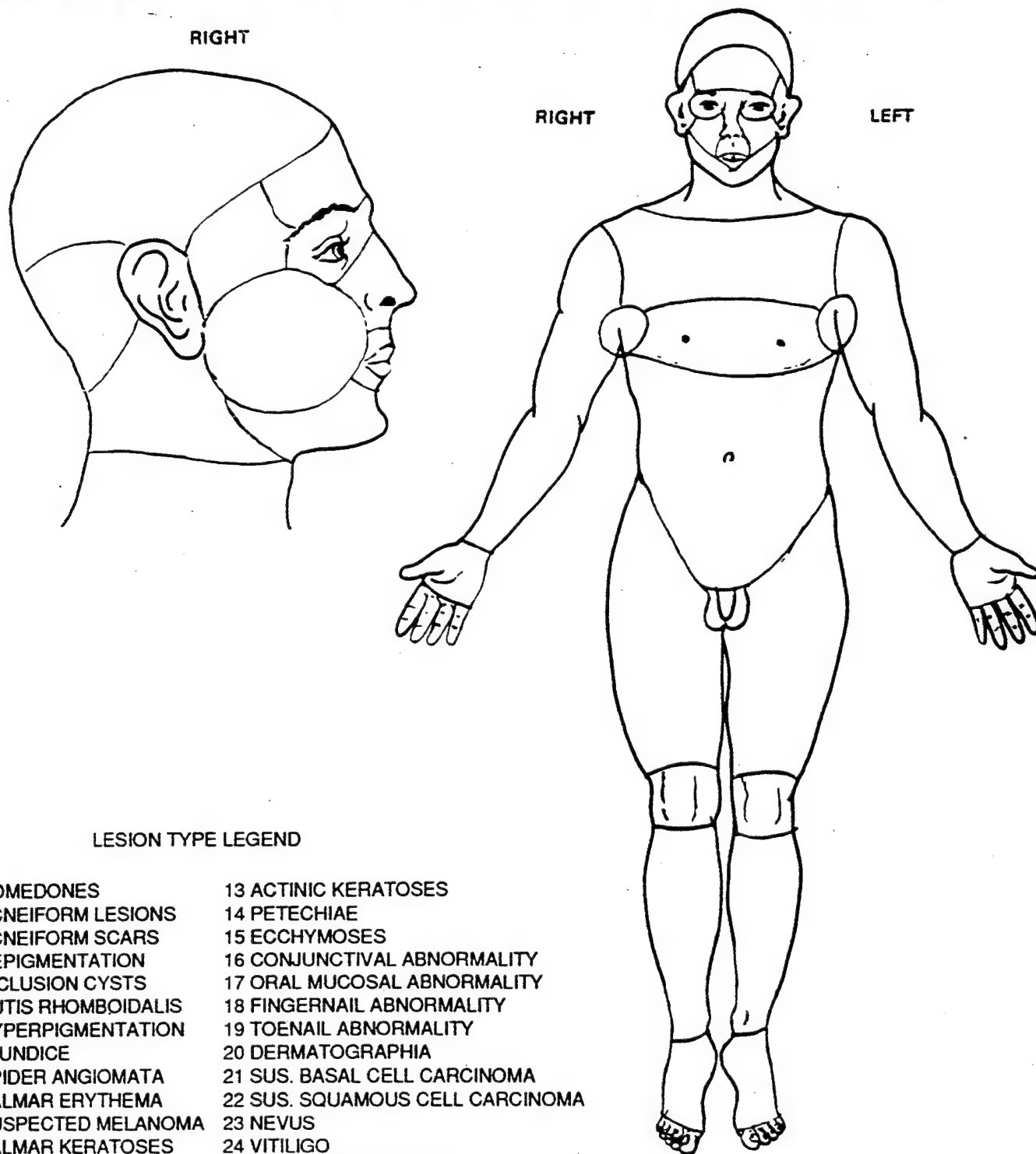
FORM QA AUDIT DONE BY:

ID. NUMBER  
1 2 3 4 5 6 7 8 9

INITIALS DATE



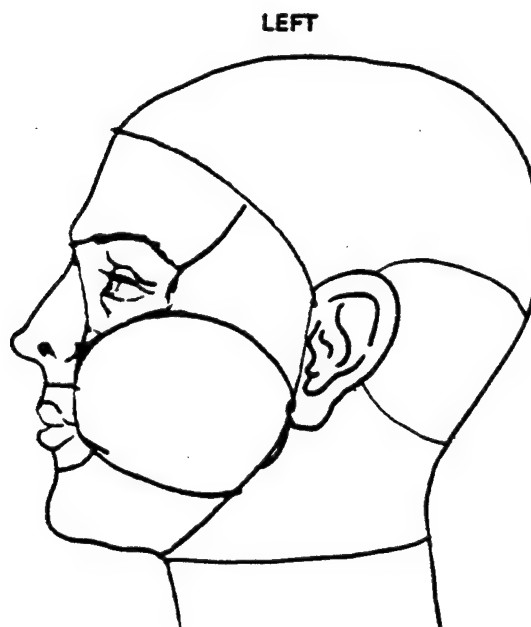
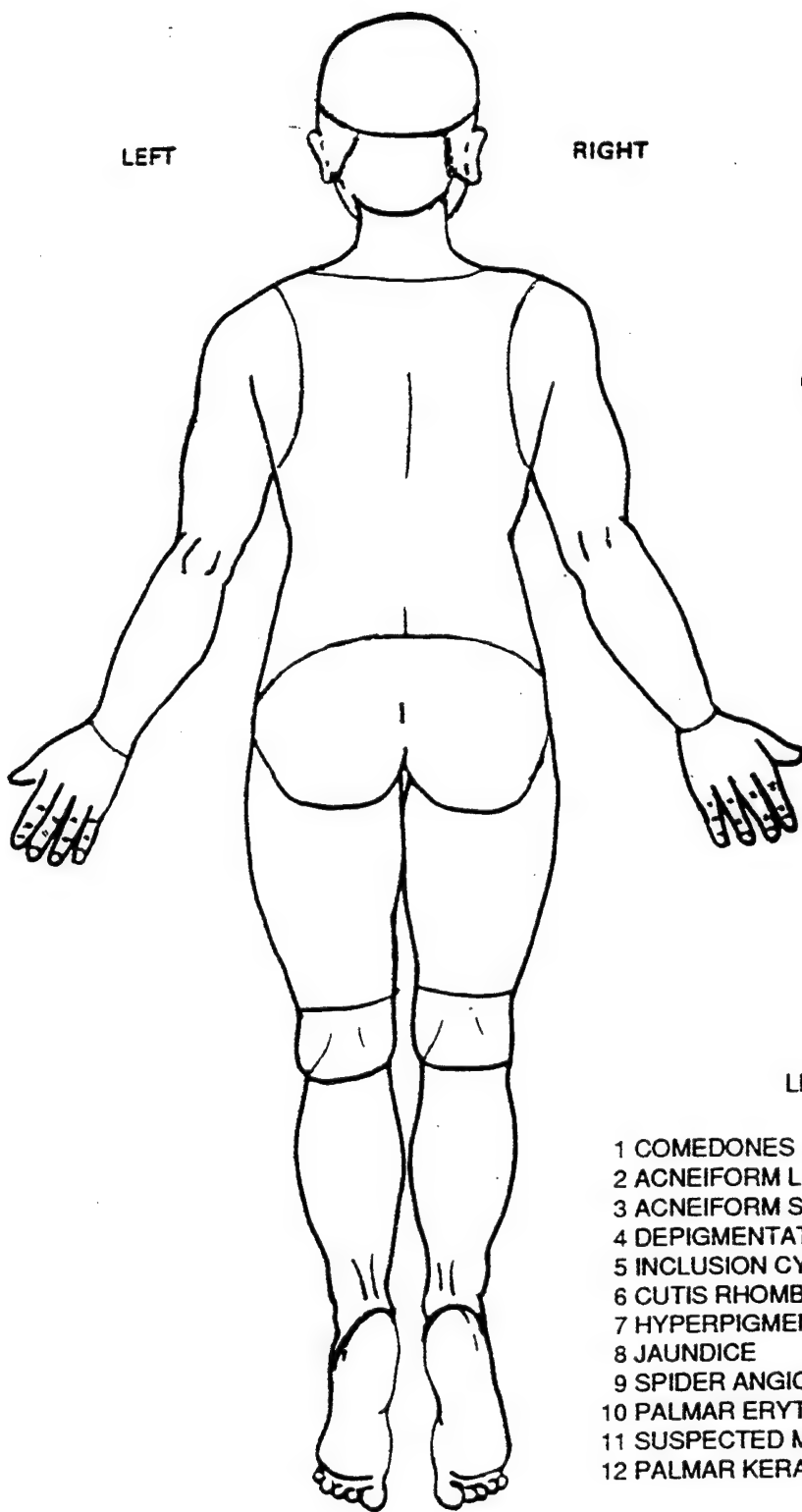
PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
FORM AFHS-9	ANATOMICAL CHART		YEAR 10 FOLLOW UP



#### LESION TYPE LEGEND

- |                       |                                 |
|-----------------------|---------------------------------|
| 1 COMEDONES           | 13 ACTINIC KERATOSES            |
| 2 ACNEIFORM LESIONS   | 14 PETECHIAE                    |
| 3 ACNEIFORM SCARS     | 15 ECCHYMOSES                   |
| 4 DEPIGMENTATION      | 16 CONJUNCTIVAL ABNORMALITY     |
| 5 INCLUSION CYSTS     | 17 ORAL MUCOSAL ABNORMALITY     |
| 6 CUTIS RHOMBOIDALIS  | 18 FINGERNAIL ABNORMALITY       |
| 7 HYPERPIGMENTATION   | 19 TOENAIL ABNORMALITY          |
| 8 JAUNDICE            | 20 DERMATOGRAPHIA               |
| 9 SPIDER ANGIOMATA    | 21 SUS. BASAL CELL CARCINOMA    |
| 10 PALMAR ERYTHEMA    | 22 SUS. SQUAMOUS CELL CARCINOMA |
| 11 SUSPECTED MELANOMA | 23 NEVUS                        |
| 12 PALMAR KERATOSES   | 24 VITILIGO                     |
|                       | 25 OTHER ABNORMALITY            |


(OVER)



#### LESION TYPE LEGEND

- |                       |                                 |
|-----------------------|---------------------------------|
| 1 COMEDONES           | 13 ACTINIC KERATOSES            |
| 2 ACNEIFORM LESIONS   | 14 PETECHIAE                    |
| 3 ACNEIFORM SCARS     | 15 ECCHYMOSES                   |
| 4 DEPIGMENTATION      | 16 CONJUNCTIVAL ABNORMALITY     |
| 5 INCLUSION CYSTS     | 17 ORAL MUCOSAL ABNORMALITY     |
| 6 CUTIS RHOMBOIDALIS  | 18 FINGERNAIL ABNORMALITY       |
| 7 HYPERPIGMENTATION   | 19 TOENAIL ABNORMALITY          |
| 8 JAUNDICE            | 20 DERMATOGRAPHIA               |
| 9 SPIDER ANGIOMATA    | 21 SUS. BASAL CELL CARCINOMA    |
| 10 PALMAR ERYTHEMA    | 22 SUS. SQUAMOUS CELL CARCINOMA |
| 11 SUSPECTED MELANOMA | 23 NEVUS                        |
| 12 PALMAR KERATOSES   | 24 VITILIGO                     |
|                       | 25 OTHER ABNORMALITY            |

PRINTED NAME OF EXAMING PHYSICIAN	SIGNATURE	DATE

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

# FORM AFHS-5 NEUROLOGIC EXAMINATION

YEAR 10  
FOLLOW UP

## HEAD AND NECK

### INSPECTION AND PALPATION

CNE YES NO

- ☐ NORMAL ☒ ☐ ASYMMETRY  
☐ ABNORMAL ☒ ☐ DEPRESSION  
☒ ☐ SCAR  
☒ ☐ OTHER

### NECK RANGE OF MOTION

NORMAL

DECREASED

CNE

- LEFT ☐ ☐ ☒  
RIGHT ☐ ☐ ☒  
FORWARD ☐ ☐ ☒  
BACKWARD ☐ ☐ ☒

☐ ☐ COMMENTS

## MOTOR SYSTEMS

### GAIT

- ☐ NORMAL ☒ ☐ BROAD BASED  
☐ ABNORMAL ☒ ☐ SMALL STEPPED  
☐ COULD NOT EXAMINE ☒ ☐ ATAXIC  
☒ ☐ OTHER

### ARM SWING MOVEMENT

NORMAL

ABNORMAL

CNE

- LEFT ☐ ☐ ☒  
RIGHT ☐ ☐ ☒

### HANDEDNESS

- ☐ LEFT  
☐ RIGHT  
☐ BOTH

☐ ☐ COMMENTS

## MUSCLE STATUS

	BULK	<input type="radio"/> NORMAL <input type="radio"/> ABNORMAL	DECREASED			INCREASED			<input type="radio"/> <input type="radio"/> COMMENTS	
			LEFT	RIGHT	BOTH	LEFT	RIGHT	BOTH		
UPPER EXTREMITIES		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
LOWER EXTREMITIES		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
<b>STRENGTH</b>										
DISTAL WRIST EXTENSORS		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
ANKLE/TOE FLEXORS		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
PROXIMAL DELTOIDS		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
HIP FLEXORS		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

## ABNORMAL MOVEMENTS

- ☐ ☐ TICS, CHOREAS FASCICULATIONS 1 2 3 4 ☐ ☐ COMMENTS  
☐ ☐ TENDERNESS 1 2 3 4

## TREMOR(S)

### EXTREMITY

UPPER

LOWER

LEFT RIGHT LEFT RIGHT

- NO TREMOR ☐ ☐ ☐ ☐  
RESTING ☐ ☐ ☐ ☐  
ESSENTIAL ☐ ☐ ☐ ☐  
INTENTION ☐ ☐ ☐ ☐  
OTHER ☐ ☐ ☐ ☐

☐ ☐ COMMENT

## SPEECH

- ☐ NORMAL ☐ DYSARTHRIA  
☐ APHASIA ☐ AGNOSIA  
☐ OTHER ABNORMALITY  
☐ ☐ COMMENT

## COORDINATION

NORMAL

ABNORMAL

CNE

- 1 EQUILIBRATORY (ROMBERG) ☐ ☐ ☐ ☒  
2 FINGER-NOSE-FINGER ☐ ☐ ☐ ☒  
3 HEEL-KNEE-SHIN ☐ ☐ ☐ ☒  
4 HAND PRONATION/SUPINATION ☐ ☐ ☐ ☒  
5 RAPID PATTING ☐ ☐ ☐ ☒

☐ ☐ COMMENTS

## DEEP TENDON REFLEXES

(0 = ABSENT, 1 = SLUGGISH, 2 = ACTIVE, 3 = VERY ACTIVE, 4 = TRANSIENT CLONUS, 5 = SUSTAINED CLONUS, X = CNE)

☐ ☐ COMMENTS

	LEFT						CNE	RIGHT						CNE
BICEPS	0	1	2	3	4	5	<input checked="" type="radio"/>	0	1	2	3	4	5	<input checked="" type="radio"/>
TRICEPS	0	1	2	3	4	5	<input checked="" type="radio"/>	0	1	2	3	4	5	<input checked="" type="radio"/>
PATELLAR	0	1	2	3	4	5	<input checked="" type="radio"/>	0	1	2	3	4	5	<input checked="" type="radio"/>
ACHILLES	0	1	2	3	4	5	<input checked="" type="radio"/>	0	1	2	3	4	5	<input checked="" type="radio"/>
BABINSKI	<input type="radio"/> PRESENT <input type="radio"/> ABSENT						<input checked="" type="radio"/>	<input type="radio"/> PRESENT <input type="radio"/> ABSENT						<input checked="" type="radio"/>

# CRANIAL NERVES AND MENTAL STATUS

CODES: (X) = COULD NOT EXAMINE, (N) = NO; NOT NORMAL, (Y) = YES, NORMAL  
(R) = DEVIATED TO RIGHT SIDE, (L) = DEVIATED TO LEFT SIDE

## MENINGEAL IRRITATION AND SENSORY SYSTEM

	- ABNORMAL -				(Y) (N) COMMENTS
	NORMAL	LEFT	RIGHT	BOTH	CNE
STRAIGHT LEG RAISING	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(X)
LIGHT TOUCH	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(X)
PIN PRICK	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(X)
VIBRATION AT ANKLE (128 HZ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(X)
POSITION (GREAT TOE)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(X)

## CRANIAL NERVES (I, VII)

LEFT	RIGHT	(Y) (N) COMMENTS (I, VII)
(X) (N) (Y)	(X) (N) (Y)	SENSE OF SMELL PRESENT?
(X) (N) (Y)	(X) (N) (Y)	SMILE NORMAL?
(X) (N) (Y)	(X) (N) (Y)	PALPEBRAL FISSURE NORMAL?

## CRANIAL NERVES (II)

LEFT	RIGHT	(Y) (N) COMMENTS (II)
(X) (N) (Y)	(X) (N) (Y)	FUNDOSCOPIC EXAM NORMAL?
(X) (N) (Y)	(X) (N) (Y)	ABSENCE OF DISK PALLOR/ATROPHY?
(X) (N) (Y)	(X) (N) (Y)	ABSENCE OF EXUDATE?
(X) (N) (Y)	(X) (N) (Y)	ABSENCE OF PAPILLEDEMA?
(X) (N) (Y)	(X) (N) (Y)	ABSENCE OF HEMORRHAGE?

## CRANIAL NERVES (III, IV, VI)

LEFT	RIGHT	(Y) (N) COMMENTS (III, IV, VI)
(X) (N) (Y)	(X) (N) (Y)	VISUAL FIELDS NORMAL TO CONFRONTATION?
(X) (N) (Y)	(X) (N) (Y)	PUPILS EQUAL SIZE? DIFFERENCE → ① ② ③ ④ mm
(X) (N) (Y)	(X) (N) (Y)	PUPIL SHAPE/POSITION ROUND & NORMAL? →
(X) (N) (Y)	(X) (N) (Y)	LIGHT REACTION NORMAL?
(X) (N) (Y)	(X) (N) (Y)	EYE MOVEMENT NORMAL?
(X) (N) (Y)	(X) (N) (Y)	HORIZONTAL NYSTAGMUS
(X) (N) (Y)	(X) (N) (Y)	VERTICAL NYSTAGMUS
(X) (N) (Y)	(X) (N) (Y)	ROTARY NYSTAGMUS
(X) (N) (Y)	(X) (N) (Y)	EYEBALL POSITION NORMAL? →
(X) (N) (Y)	(X) (N) (Y)	PTOSIS ABSENT?
(X) (N) (Y)	(X) (N) (Y)	CORNEAL REFLEX NORMAL?

DRAW ABNORMAL POSITIONS

(O) = CONTACT LENSES NOT REMOVED

## CRANIAL NERVES (V, IX, XI, XII)

LEFT	RIGHT	(Y) (N) COMMENTS (V, IX, XI, XII)
(X) (N) (Y)	(X) (N) (Y)	TRIGEMINAL V1 SENSORY NORMAL?
(X) (N) (Y)	(X) (N) (Y)	TRIGEMINAL V2 SENSORY NORMAL?
(X) (N) (Y)	(X) (N) (Y)	TRIGEMINAL V3 SENSORY NORMAL?
(X) (N) (Y)	(X) (N) (Y)	PALATE REFLEX NORMAL?
(Y) (N)	(R) (L)	TONGUE PROTRUDES TO MIDDLE, NOT DEVIATED?
(Y) (N)	(R) (L)	TONGUE NORMAL, NOT ATROPHIED?
(Y) (N)	(R) (L)	CLENCH JAW SYMMETRIC (NOT DEVIATED)?
(Y) (N)	(R) (L)	PALATE & UVULA MOVEMENT (NOT DEVIATED)?
(Y) (N) MENTAL STATUS GROSSLY ORIENTED & NORMAL?		
(Y) (N) COMMENTS		

## IMPRESSION OF ENTIRE NEUROLOGIC EXAM

- ☐ COMPLETELY NORMAL EXAM  
☐ NORMAL WITH MINOR VARIATIONS NOTED  
☐ ABNORMAL WITH NO FOLLOW-UP NEEDED  
☐ ABNORMAL WITH FOLLOW-UP RECOMMENDED

(Y) (N) COMMENTS

FORM QA AUDIT DONE BY:

① ② ③ ④ ⑤ ⑥ INITIALS

DATE: INITIALS:

PRINTED NAME OF EXAMINING PHYSICIAN

PARTICIPANT LABEL

CASE NUMBER

GROUP NUMBER

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

EXAMINER I.D.



FORM AFHS-8

VIETNAM COMBAT INDEX

YEAR 10  
FOLLOW-UP

VERSION 1.0 JRW:SCF 585

## INSTRUCTIONS

INSTRUCTIONS ARE INCLUDED WITH EACH QUESTION. BELOW IS AN EXAMPLE OF THE CORRECT WAY TO ANSWER EACH QUESTION.

EXAMPLE: DO YOU PLAN TO DO ANY OF THE FOLLOWING NEXT WEEK? (PLEASE BLACKEN EITHER "YES" OR "NO")

YES NO

- ☐ (N) VISIT A RELATIVE  
☒ (Y) GO TO A MUSEUM  
☐ (N) GO TO A MOVIE

(I WILL VISIT A RELATIVE  
AND GO TO A MOVIE NEXT  
WEEK)

## AIRCRAFT

PLEASE INDICATE WHETHER YOU SERVED OR FLEW IN ANY OF THE FOLLOWING AIRCRAFT WHILE IN VIETNAM: (DO NOT INCLUDE TRANSPORTATION TO OR FROM VIETNAM)

WERE YOU EVER A  
CREW MEMBER?

☒ YES ☐ NO

YES NO

☒ (Y) ☐ (N) F-4  
☒ (Y) ☐ (N) F-5  
☒ (Y) ☐ (N) F-105  
☒ (Y) ☐ (N) B-52  
☒ (Y) ☐ (N) B-66

YES NO

☒ (Y) ☐ (N) C-7  
☒ (Y) ☐ (N) C-54  
☒ (Y) ☐ (N) C-118  
☒ (Y) ☐ (N) C-123  
☒ (Y) ☐ (N) C-130

YES NO

☒ (Y) ☐ (N) C-130 (GUNSHIP)  
☒ (Y) ☐ (N) HELICOPTER GUNSHIP  
☒ (Y) ☐ (N) OTHER AIRCRAFT

SPECIFY

## EXPERIENCES


BELOW IS A LIST OF DIFFERENT COMBAT ROLES AND FLYING EXPERIENCES THAT AIR FORCE PERSONNEL HAD DURING THE VIETNAM WAR. FOR EACH STATEMENT, PLEASE BLACKEN THE "YES" CIRCLE IF YOU HAD THAT EXPERIENCE DURING THE VIETNAM WAR OR THE "NO" CIRCLE IF YOU DID NOT. PLEASE BLACKEN EITHER "YES" OR "NO" FOR EACH EXPERIENCE.

YES NO

- ☒ (Y) ☐ (N) RECEIVED COMBAT PAY  
☐ (Y) ☐ (N) CRASH LANDED, BAILED OUT, OR SHOT DOWN  
☐ (Y) ☐ (N) RECEIVED SNIPER OR SAPPER FIRE IN OR AROUND BASE  
☐ (Y) ☐ (N) MOVED KILLED OR WOUNDED PERSONNEL  
☐ (Y) ☐ (N) SERVED AS A FORWARD AIR CONTROLLER (FAC)  
☐ (Y) ☐ (N) FLEW IN THE SAME AIRCRAFT WHEN FELLOW CREWMEMBER WAS WOUNDED OR KILLED  
☐ (Y) ☐ (N) FLEW IN THE SAME FORMATION OR ON THE SAME SORTIE WHEN A FELLOW CREWMEMBER WAS WOUNDED OR KILLED

YES NO

- ☐ (Y) ☐ (N) FLEW IN AN AIRCRAFT THAT RECEIVED BATTLE DAMAGE  
☐ (Y) ☐ (N) RECEIVED INCOMING ARTILLERY OR ROCKET FIRE AT HOME BASE OR CAMP  
☐ (Y) ☐ (N) ENCOUNTERED MINES OR BOOBY TRAPS  
☐ (Y) ☐ (N) KILLED VC OR NVA IN STRAFING OR BOMBING RUNS  
☐ (Y) ☐ (N) WOUNDED  
☐ (Y) ☐ (N) HAD A CLOSE FRIEND KILLED IN ACTION  
☐ (Y) ☐ (N) ENGAGED VC OR NVA IN A FIREFIGHT  
☐ (Y) ☐ (N) CAPTURED BY THE ENEMY

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

FORM AFHS-10

**ELECTROCARDIOGRAM REPORT**YEAR 10  
FOLLOW-UP

ECG EXAM WAS/IS:  
FOLLOW-UP RECOMMENDED?  
PARTICIPANT COMPLY  
WITH 4 HOUR ABSTINENCE

☐ NORMAL  
☐ NO  
☐ YES

☐ ABNORMAL  
☐ YES  
☐ NO

☐ REFUSED

TECHNICALLY  
RHYTHM: NORMAL SINUS

☐ SATISFACTORY  
☐ YES

☐ UNSATISFACTORY  
☐ NO

**RATE**

TACHYCARDIA  
>100

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BRADYCARDIA  
<50

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

**INTERVALS**

PR  
QRS  
QT

☐ NORMAL  
☐ NORMAL  
☐ NORMAL

☐ PROLONGED  
☐ PROLONGED  
☐ PROLONGED

AXIS:

☐ NORMAL☐ RIGHT ☐ LEFT**MORPHOLOGY**

P-WAVE:  
QRS

☐ NORMAL  
☐ NORMAL  
☐ RBBB

☐ ABNORMAL  
☐ ABNORMAL  
☐ LBBB

ST-T  
Q-WAVE  
U-WAVE

☐ NORMAL  
☐ NORMAL  
☐ PRESENT

☐ ABNORMAL  
☐ ABNORMAL  
☐ ABSENT

**CHAMBER ENLARGEMENT**

RIGHT ATRIAL ☐ Y ☐ N  
LEFT ATRIAL ☐ Y ☐ N  
RIGHT VENTRIC ☐ Y ☐ N  
LEFT VENTRIC ☐ Y ☐ N

PRIOR INFARCTION ☐ Y ☐ N

- INFERIOR ☐  
- ANTEROSEPTAL ☐  
- ANTERIOR ☐  
- LATERAL ☐

ARRHYTHMIA? ☐ Yes

IF YES

RHYTHM STRIP ATTACHED ☐ Y ☐ N

NOTE TYPE

☐ ATRIAL FLUTTER  
☐ ATRIAL FIBRILLATION  
☐ JUNCTIONAL RHYTHM  
☐ MULTIFOCAL ATRIAL RHYTHM  
☐ MULTIFOCAL ☐ PVCs ☐ PACS  
☐ UNIFOCAL ☐ PVCs ☐ PACS  
☐ OTHER

- A-V NODAL ☐ Y ☐ N

1st° A-V BLOCK ☐  
2nd° A-V BLOCK ☐  
3rd° A-V BLOCK ☐

OTHER

☐ LOW QRS VOLTAGE  
☐ ANEURYSM ☐ INFERIOR ☐ ANTERIOR ☐ ANTEROSEPTAL ☐ LATERAL  
☐ EARLY REPOLARIZATION  
☐ PRE EXCITATION ☐ WPW ☐ LGL ☐ OTHER

☐ Y ☐ N COMMENTS

TECHNICIANS ID# INITIALS  
1 2 3 4 5 6

PRINTED NAME OF CARDIOLOGIST

ID #

INITIALS

FORM QA AUDIT DONE BY:  
ID# INITIALS

1 2 3 4 5 6



PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9



FORM AFHS-11
RADIOLOGY EXAMINATION
YEAR 10 FOLLOW-UP

**CHEST X-RAY EXAM WAS:**    ☐ NORMAL, NO FINDINGS    ☐ NORMAL WITH FINDINGS    ☐ ABNORMAL    ☐ NEED PRIOR FILMS(S)    ☐ REFUSED

**FILM QUALITY IS:**    ☐ GOOD    ☐ FAIR    ☐ REPEAT    ☐ WAS REPEATED

**FOLLOW-UP NEEDED:**    ☐ YES    ☐ NO

**COMMENTS/RECOMMENDATIONS:**

NORMAL	ABNORMAL	(PLEASE NOTE THE LOCATIONS IN ABOVE DIAGRAM)
<input checked="" type="radio"/> <input type="radio"/> LUNGS	<input type="radio"/> <input type="radio"/> GRANULOMATOUS CHANGES <input type="radio"/> OLD <input type="radio"/> SUSPECT <input type="radio"/> <input type="radio"/> INFILTRATE <input type="radio"/> ACUTE <input type="radio"/> CHRONIC <input type="radio"/> <input type="radio"/> HYPERINFLATION <input type="radio"/> COPD <input type="radio"/> OTHER	<input type="radio"/> <input type="radio"/> LESION/NODULE/DENSITY <input type="radio"/> BENIGN <input type="radio"/> SUSPECT <input type="radio"/> CALCIFIED <input type="radio"/> <input type="radio"/> INTERSTITIAL MARKINGS <input type="radio"/> <input type="radio"/> OTHER: →
<input checked="" type="radio"/> <input type="radio"/> ARTERIAL VASCULATURE	<input type="radio"/> DILATED/TORTUOUS AORTA <input type="radio"/> ASC <input type="radio"/> DESC <input type="radio"/> ARCH <input type="radio"/> AORTIC ANEURYSM <input type="radio"/> ASC <input type="radio"/> DESC <input type="radio"/> ARCH	<input type="radio"/> CALCIFICATIONS <input type="radio"/> ASC <input type="radio"/> DESC <input type="radio"/> ARCH <input type="radio"/> OTHER: →
<input checked="" type="radio"/> <input type="radio"/> VENOUS VASCULATURE	<input type="radio"/> A-V MALFORMATION <input type="radio"/> PULMONARY VENOUS CONGESTION	<input type="radio"/> OTHER →
<input checked="" type="radio"/> <input type="radio"/> DIAPHRAGMS	<input type="radio"/> ELEVATED <input type="radio"/> OTHER → <input type="radio"/> HIATAL HERNIA	
HEART NORMAL CHAMBER ↑ <input checked="" type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> ATRIAL <input type="radio"/> <input type="radio"/> VENTRICULAR <input type="radio"/> <input type="radio"/> OTHER →	PLEURA NORMAL <input checked="" type="radio"/> <input type="radio"/> RIGHT <input checked="" type="radio"/> <input type="radio"/> LEFT <input checked="" type="radio"/> <input type="radio"/> THICKENED <input type="radio"/> <input type="radio"/> APICAL <input type="radio"/> <input type="radio"/> BASE <input type="radio"/> <input type="radio"/> OTHER →
<b>BONEY STRUCTURES</b> NORMAL <input checked="" type="radio"/> <input type="radio"/>	<b>PRIOR FRACTURES:</b> <input type="radio"/> STERNUM <input type="radio"/> SPINE <input type="radio"/> CLAVICLE <input type="radio"/> RIBS	<b>RIB ABNORMALITY</b> <input type="radio"/> CERVICAL <input type="radio"/> HYPOPLASTIC <input type="radio"/> FUSED
<b>DEGENERATIVE CHANGES:</b> <input type="radio"/> CERVICAL <input type="radio"/> DORSAL	<b>SPINAL CURVATURE:</b> <input type="radio"/> SCOLIOSIS <input type="radio"/> KYPHOSIS	<b>POST SURGICAL CHANGES</b> <input type="radio"/> PRIOR THORACTOMY <input type="radio"/> PRIOR CARDIAC SURGERY <input type="radio"/> PACEMAKER <input type="radio"/> OTHER: →

DATE OF EXAM	X-RAY TECHNICIAN: ID# 1 2 3 4 5 6 INITIALS 1 2 3 4 5 6
--------------	--

# ABDOMINAL EVALUATION

TECHNICALLY SATISFACTORY? ☐ Y ☐ N ☐ R

ABNORMALITIES:

MASSSES ☐ Y ☐ N

ABNORMAL CALCIFICATIONS ☐

ABNORMAL BOWEL GAS PATTERN ☐

ABNORMAL BONEY STRUCTURES ☐

OTHER (USE COMMENT AREA AT RIGHT) ☐

FOLLOW-UP NEEDED? ☐

COMMENTS/RECOMMENDATIONS:

TECHNICIAN ID # INITIALS

1 2 3 4 5 6

1 2 3 4 5 6

## TESTICULAR ULTRASOUND STUDY

### RIGHT TESTICLE

PRESENT ☐

ABSENT ☐

REFUSED ☐

LENGTH

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

WIDTH

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

AP DIAMETER

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

VOLUME

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

VOLUME:

NORMAL ☐

ABNORMAL ☐

(IF VOLUME ABNORMAL:)

VOLUME ENLARGED ☐ Y ☐ N

VOLUME DECREASED ☐ Y ☐ N

OTHER FINDINGS ☐ Y ☐ N

MASS ☐ Y ☐ N

CYST ☐ Y ☐ N

OTHER ☐ Y ☐ N

NEEDS FURTHER WORK-UP ☐ Y ☐ N

SIGNIFICANT:

☐ Y ☐ N

☐ Y ☐ N

☐ Y ☐ N

☐ Y ☐ N

### LEFT TESTICLE

PRESENT ☐

ABSENT ☐

REFUSED ☐

LENGTH

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

WIDTH

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

AP DIAMETER

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

VOLUME

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

VOLUME:

NORMAL ☐

ABNORMAL ☐

(IF VOLUME ABNORMAL:)

VOLUME ENLARGED ☐ Y ☐ N

VOLUME DECREASED ☐ Y ☐ N

OTHER FINDINGS ☐ Y ☐ N

MASS ☐ Y ☐ N

CYST ☐ Y ☐ N

OTHER ☐ Y ☐ N

NEEDS FURTHER WORK-UP ☐ Y ☐ N

SIGNIFICANT:

☐ Y ☐ N

☐ Y ☐ N

☐ Y ☐ N

☐ Y ☐ N

TECHNICIAN

ID #

INITIALS

1 2 3 4 5 6

☐ Y ☐ N COMMENTS:

PRINTED NAME OF RADIOLOGIST

ID #

INITIALS


FORM QA AUDIT

DONE BY:

1 2 3 4 5 6

INITIALS



PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

## FORM AFHS-12 SKIN TEST FOR DELAYED CUTANEOUS HYPERSENSITIVITY

YEAR 10  
FOLLOW-UP

☐ ☐ IS PARTICIPANT TAKING SYSTEMIC CORTICOSTEROIDS OR IMMUNOSUPPRESSANTS?  
SPECIFY NON-COMPLIANCE AND/OR MEDICATION(S), DOSAGE(S) & FUNCTION(S) BELOW:

### ANTIGENS TESTED - 48 HR READINGS - GREATEST INDURATION IN MM

ANTIGEN ADMINISTERED				INITIALS	MUMPS (2 CFU) (0.05 ml)	CANDIDA ALBICANS (1:1000 w/v) (0.1 ml)
MILITARY TIME	DATE					
	MO	DAY	YR		COMMENTS:	COMMENTS:
0 0 0 0	0 0	0 0	0			
1 1 1 1	1 1	1 1	1			
2 2 2 2	2 2	2 2	2			
3 3 3 3	3 3	3 3	3			
4 4 4 4	4 4	4 4	4			
5 5 5 5	5 5	5 5	5			
6 6 6 6	6 6	6 6	6			
7 7 7 7	7 7	7 7	7			
8 8 8 8	8 8	8 8	8			
9 9 9 9	9 9	9 9	9			


TRICHOPHYTON (1:1000 w/v) (0.1 ml)				INITIALS	STAPH-PHAGE-LYSATE (0.05 ml) (STAPH = 6.0 TO 9 X 10 <sup>6</sup> CPU) (PHAGE = 0.5 TO 5 X 10 <sup>7</sup> PFU)	READ # ① ② ③
MILITARY TIME	DATE					
	MO	DAY	YR		COMMENTS:	
	0 0	0 0	0			
	1 1	1 1	1			
	2 2	2 2	2			
	3 3	3 3	3			
	4 4	4 4	4			
	5 5	5 5	5			
	6 6	6 6	6			
	7 7	7 7	7			
	8 8	8 8	8			
	9 9	9 9	9			

### INTERPRETATION

- ☐ NOT TESTED      ☐ NOT INTERPRETABLE      ☐ REFUSED  
☐ POSSIBLY ABNORMAL (ALL <5 mm I)    ☐ ☐ FORM LETTER EXPLANATION GIVEN PARTICIPANT?  
☐ FOLLOW-UP NEEDED  
☐ NORMAL DELAYED CUTANEOUS HYPERSENSITIVITY (≥TEST ≥5 mm I)  
☐ OTHER

☐ COMMENTS/RECOMMENDATIONS:

PRINTED NAME OF ALLERGIST	ID#	INITIALS	DATE	FORM QA AUDIT BY:
				① ② ③ ④ ⑤ ⑥ INITIALS DATE

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	DIAGNOSTICIAN ID NO.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

FORM AFHS - 14 VASCULAR LABORATORY - DOPPLER

YEAR 10 FOLLOW UP

yes no

☒ ☐ Are films attached? How Many? \_\_\_\_\_

☒ ☐ Did participant comply with 4 hour abstinence requirement?

	Right				Left					
Radial	cne <input checked="" type="radio"/>	0	1	2	3	cne <input checked="" type="radio"/>	0	1	2	3
Femoral	cne <input checked="" type="radio"/>	0	1	2	3	cne <input checked="" type="radio"/>	0	1	2	3
Popliteal	cne <input checked="" type="radio"/>	0	1	2	3	cne <input checked="" type="radio"/>	0	1	2	3
Dorsalis Pedis	cne <input checked="" type="radio"/>	0	1	2	3	cne <input checked="" type="radio"/>	0	1	2	3
Posterior Tibial	cne <input checked="" type="radio"/>	0	1	2	3	cne <input checked="" type="radio"/>	0	1	2	3

Follow-up: ☒ ☐

Comments/Recommendations:

☐ Participant refused

PRINTED NAME OF R.V.T.

ID#

INITIALS

ID#

TECHNICIAN  
INITIALS

1 2 3 4 5 6

FORM QA AUDIT DONE BY:

ID#

INITIALS

1 2 3 4 5 6

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9

**FORM AFHS - 15 VIBROTACTILE THRESHOLD MEASUREMENT**
**YEAR 10 FOLLOW-UP**

**TRIAL #1**

**DESCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #2**

**ASCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #3**

**DESCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #4**

**ASCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #5**

**DESCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #6**

**ASCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**TRIAL #7**

**DESCENDING**

**RIGHT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

**LEFT**

0	0.0
1	1.1
2	2.2
3	3.3
4	4.4
5	5.5
6	6.6
7	7.7
8	8.8
9	9.9

☐ REFUSED  
☐ COULD NOT EXAMINE  
☐ COMMENT?

<b>EXAMINER NAME</b>	<b>ID#</b>	<b>INITIALS</b>
		<b>QA AUDIT BY: INITIALS</b> 1 2 3 4 5 6

The seal of the United States Air Force Health Study is a circular emblem. The outer ring contains the text "UNITED STATES AIR FORCE" at the top and "HEALTH STUDY" at the bottom, separated by small dots. The center of the seal features a shield with a caduceus (a staff with two snakes and wings) superimposed over it. Above the shield is a stylized winged figure, possibly representing a spirit or a personification of health.

**YEAR 10  
FOLLOW UP**

## AUDIOMETRY

## SPIROMETRY

## VISION SCREEN

## TONOMETRY

### HEALTH PROMOTION SUGGESTIONS:

WEIGHT SMOKING ☐ALCOHOL ☐

COPIES GIVEN TO PATIENT: Y ☐ N ☐

**FOLLOW-UP NEEDED:**

1.23.

14.


112

13.

4.

PARTICIPANT SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

C-33

DATE OF DIAGNOSIS	MO	DAY	YR	PARTICIPANT IDENTIFICATION		 YEAR 10 FOLLOW UP
OUTBRIEFING CONDUCTED	YES	NO				

**FORM AFHS - 16B      DIAGNOSTIC SUMMARY (PSYCHOMETRIC)**

- CHECK ONE

ICD-9-CM CODE	PRE-EXISTING	NEWLY DIAGNOSED	DIAGNOSIS BASED ON PSYCHOLOGICAL TESTING : MILLON, SCLR90

COMMENTS:

PRINTED NAME OF DIAGNOSTICIAN	ID#	INITIALS	DATE	FORM QA AUDIT DONE BY: ID#      INITIALS      DATE
-------------------------------	-----	----------	------	---

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9



# FORM AFHS-20 AUDIOLOGY

YEAR 10  
FOLLOW UP

AUDIOMETER: MAICO 40 ANSI 1969 888 = NO RESPONSE 999 = NOT TESTED

## PURE TONE AUDIOMETRY RESULTS

### FREQUENCY IN HERTZ

#### LEFT EAR

HZ

#### RIGHT EAR

250	500	1000	2000	3000	4000	6000	8000	HZ	250	500	1000	2000	3000	4000	6000	8000
								DB								
0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0		0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0
1	1 1	1 1	1 1	1 1	1 1	1 1	1		1	1 1	1 1	1 1	1 1	1 1	1	1
2	2	2	2	2	2	2	2		2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3		3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4		4	4	4	4	4	4	4	4
5 5	5 5	5 5	5 5	5 5	5 5	5 5	5 5		5 5	5 5	5 5	5 5	5 5	5 5	5 5	5 5
6	6	6	6	6	6	6	6		6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7		7	7	7	7	7	7	7	7
8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8		8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8	8 8
9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9		9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9	9 9

#### RELIABILITY:

#### HEARING AID USE:

#### TINNITUS:

#### (Y) (N) COMMENTS?

<input type="radio"/> GOOD	<input type="radio"/> NONE	NONE	(L) (R) (B)
<input type="radio"/> FAIR	<input type="radio"/> LEFT EAR	MILD	(L) (R) (B)
<input type="radio"/> QUESTIONABLE	<input type="radio"/> RIGHT EAR	MODERATE	(L) (R) (B)
<input type="radio"/> REFUSED TEST	<input type="radio"/> BOTH EARS	SEVERE	(L) (R) (B)

## INTERPRETATION

#### HEARING ABILITY

#### LOW FREQUENCIES (250 HZ to 500 HZ)

#### MID FREQUENCIES (1000 HZ to 2000 HZ)

#### HIGH FREQUENCIES (3000 HZ to 8000 HZ)

	AS	AD	AS	AD	AS	AD
NORMAL LOSS (0-25 Db)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MILD LOSS (30-40 Db)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MODERATE LOSS (45-60 Db)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SEVERE LOSS (65-85 Db)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PROFOUND LOSS (90-110+ Db)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COULD NOT EXAMINE	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT

## SUMMARY AND RECOMMENDATIONS

<input type="radio"/> NORMAL HEARING BILATERALLY	YES	NO
<input type="radio"/> ABNORMAL FINDINGS	(Y)	(N) ADDITIONAL TESTS RECOMMENDED?
<input type="radio"/> REFUSED EXAM	(Y)	(N) CONSIDER HEARING AID CONSULTATION AND/OR TRIAL?

(Y) (N) RECOMMENDATIONS OR OTHER COMMENTS?


PRINTED NAME OF AUDIOLOGIST

INITIALS: / DATE:

FORM QA AUDIT DONE BY:

ID # 1 2 3 4 5 6

INITIALS: DATE:

PARTICIPANT LABEL	CASE NUMBER	GROUP NUMBER	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	EXAMINER I.D.	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	
	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	

**FORM AFHS-21 TITMUS VISION SCREEN & TONOMETRY**
**YEAR 10 FOLLOW UP**

**FAR VISION TESTS (20 FEET)**

<input type="radio"/> NORMAL <input type="radio"/> ABNORMAL		TARGET:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	NOT TESTED
		SNELLEN EQUIVALENTS	$\frac{20}{200}$	$\frac{20}{100}$	$\frac{20}{70}$	$\frac{20}{50}$	$\frac{20}{40}$	$\frac{20}{35}$	$\frac{20}{30}$	$\frac{20}{25}$	$\frac{20}{22}$	$\frac{20}{20}$	$\frac{20}{18}$	$\frac{20}{17}$	$\frac{20}{15}$	$\frac{20}{13}$	
LEFT	CORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
RIGHT	CORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
LEFT	UNCORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
RIGHT	UNCORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**STEREO DEPTH PERCEPTION**

<input type="radio"/> NORMAL <input type="radio"/> ABNORMAL		STEREO DEPTH (SHEPARD-FRY %)	1	2	3	4	5	6	7	8	9	NOT TESTED
			15%	30%	50%	60%	70%	80%	85%	90%	95%	
			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**COLOR VISION (STANDARD ISHIHARA PLATES)**

<input type="radio"/> NORMAL (4-6 CORRECT) <input type="radio"/> PARTIALLY COLOR BLIND <input type="radio"/> COLOR BLIND (ONLY 1 CORRECT)	A	B	C	D	E	F	NOT TESTED
	12	5	26	6	16	0	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**VERTICAL STEREO FOCUS**

HYPERPHORIA?		1	2	3	4	5	6	7	NOT TESTED
NONE LEFT	RT BOTH CNE	1½	1	½	*	½	1	1½	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**LATERAL STEREO FOCUS**

<input type="radio"/> NORMAL <input type="radio"/> ESOPHORIA <input type="radio"/> EXOPHORIA	ESOPHORIA										EXOPHORIA					NOT TESTED	
	PRISM DIOPTERS:	1	2	3	4	5	6	7	8	9	10	11	12	13	14		15
		7	6	5	4	3	2	1	*	1	2	3	4	5	6		7
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**NEAR VISION TESTS (14 INCHES)**

<input type="radio"/> NORMAL <input type="radio"/> ABNORMAL		TARGET:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	NOT TESTED
		SNELLEN EQUIVALENTS	$\frac{20}{200}$	$\frac{20}{100}$	$\frac{20}{70}$	$\frac{20}{50}$	$\frac{20}{40}$	$\frac{20}{35}$	$\frac{20}{30}$	$\frac{20}{25}$	$\frac{20}{22}$	$\frac{20}{20}$	$\frac{20}{18}$	$\frac{20}{17}$	$\frac{20}{15}$	$\frac{20}{13}$	
LEFT	CORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
RIGHT	CORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
LEFT	UNCORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
RIGHT	UNCORRECTED	_____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**TONOMETRY (NON CONTACT TONOMETER)**

NORMAL			ABNORMAL			NOT TESTED			LEFT EYE										RIGHT EYE													
LEFT	<input type="radio"/>		RIGHT	<input type="radio"/>			<input checked="" type="radio"/>		PRESSURE		0	1	2	3	4			0	1	2	3	4										
RIGHT	<input type="radio"/>			<input type="radio"/>			<input checked="" type="radio"/>		MM HG		0	1	2	3	4	5	6	7	8	9			0	1	2	3	4	5	6	7	8	9

(Y) (N) ADDITIONAL TESTS RECOMMENDED?	(Y) (N) COMMENTS?	FORM QA AUDIT BY: (1) (2) (3) (4) (5) (6) INITIALS:
---------------------------------------	-------------------	--



PARTICIPANT LABEL

CASE NUMBER

GROUP NUMBER

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

EXAMINER I.D.



FORM AFHS - 22

## HEMOCCULT EXAM

10 YEAR  
FOLLOW UP

**PART 1** Please record the date of each stool sampled below and describe any alterations from the hemoccult diet. The clinic will complete part 2.

PACKET 1

PACKET 2

PACKET 3

Date of smear:

/ /

/ /

/ /

Comply with diet?

☐ Y ☐ N☐ Y ☐ N☐ Y ☐ N

Comments:

**PART 2** SKD HEMOCCULT II SLIDE SAMPLE KIT EXAMINATION RESULTS  
(to be completed by the clinic)

PACKET 1

PACKET 2

PACKET 3

RESULTS :

☐☐☐

( "+" = Positive, "-" = No Reaction or Negative, "x" = No Sample Provided )

SLIDE SAMPLE KIT WAS:

- ☐ Complete (all 3 packets)
- ☐ Incomplete (< 3 packets)
- ☐ Sampled at rectal exam (0 packets)

HEMOCCULT EXAM WAS :

- ☐ All negative
- ☐ At least 1 positive

Comments/Recommendations:

PRINTED NAME OF GASTROENTEROLOGIST

ID#

INITIALS

DATE

FORM QA AUDIT DONE BY

ID# INITIALS DATE

①②③④⑤⑥





FORM AFHS - 31

**EVALUATION**YEAR 10  
FOLLOW-UP

Dear Health Study Participant:

To serve you and future study participants in the best way possible, please complete this short evaluation form. The form may be completed and delivered to the Health Study Logistic Coordinator following your outbriefing at the Scripps Clinic on the third day of your examination.

	excellent	good	satisfactory	unsatisfactory
Initial phone contact and recruitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Travel agent contact and travel arrangements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logistics Information Packet (mailed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airport/Hotel shuttle service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hotel/Clinic van service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hotel accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evening orientation meeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wives orientation meeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cafeteria meals at the Clinic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examination schedule at the Clinic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technicians (e.g., blood draw)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interviews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nursing Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychologists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examining physicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical outbriefing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Air Force Health Study Monitor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall clinical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did any examining physician ask about your specific duties in Southeast Asia? ☐yes ☐no  
(If yes, please see the Air Force On-site Monitor)

Additional comments or acknowledgements: \_\_\_\_\_

Name: \_\_\_\_\_

(not required)

Mailing Address:

Air Force Health Study M/S D4  
Science Applications International Corporation  
10260 Campus Point Drive  
San Diego, California 92121

**APPENDIX D**  
**Statistical Methods**

**Table D-1.**  
**Summary of Statistical Analysis Situations by Dependent Variable Form,**  
**Exposure Estimate, Analysis Cohort, and Analysis Type**

Dependent Variable Form	Exposure Estimate	Analysis Cohort	Analysis Type	Statistical Method	Independent Variables
Continuous	Group (Ranch Hands vs. Comparisons)	All RH & C	Unadjusted	t-Test	Group
			Adjusted	Analysis of Covariance	Group; Covariates; Group x Covariates; Covariates x Covariates
			Longitudinal*	Analysis of Covariance	Group; Age in 1992; 1982 Measurement
	Log <sub>2</sub> (Initial)	RH > 10 ppt lipid-adjusted current dioxin	Unadjusted	Linear Regression	Log <sub>2</sub> (Initial)
			Adjusted	Linear Regression	Log <sub>2</sub> (Initial); Covariates; Log <sub>2</sub> (Initial) x Covariates; Covariates x Covariates
			Longitudinal*	Linear Regression	Log <sub>2</sub> (Initial); Age in 1992; 1982 Measurement
	Categorized Dioxin	All RH with a current dioxin measurement, C ≤ 10 ppt lipid-adjusted current dioxin	Unadjusted	Analysis of Variance	DXCAT
			Adjusted	Analysis of Covariance	DXCAT; Covariates; DXCAT x Covariates; Covariates x Covariates
			Longitudinal*	Analysis of Covariance	DXCAT; Age in 1992; 1982 Measurement
	Log <sub>2</sub> (Current + 1)	All RH with a current dioxin measurement	Unadjusted	Linear Regression	Log <sub>2</sub> (Current + 1)
			Adjusted	Linear Regression	Log <sub>2</sub> (Current + 1); Covariates; Log <sub>2</sub> (Current + 1) x Covariates; Covariates x Covariates
Discrete	Group (Ranch Hands vs. Comparisons)	All RH & C	Unadjusted	Chi-Square Contingency Table	Group
			Adjusted	Logistic Regression	Group; Covariates; Group x Covariates; Covariates x Covariates

**Table D-1. (Continued)**  
**Summary of Statistical Analysis Situations by Dependent Variable Form,**  
**Exposure Estimate, Analysis Cohort, and Analysis Type**

Dependent Variable Form	Exposure Estimate	Analysis Cohort	Analysis Type	Statistical Method	Independent Variables
Discrete (Continued)			Longitudinal**	Logistic Regression	Group; Age in 1992
	Log <sub>2</sub> (Initial)	RH > 10 ppt lipid-adjusted current-dioxin	Unadjusted	Logistic Regression	Log <sub>2</sub> (Initial)
			Adjusted	Logistic Regression	Log <sub>2</sub> (Initial); Covariates; Log <sub>2</sub> (Initial) x Covariates; Covariates x Covariates
			Longitudinal**	Logistic Regression	Log <sub>2</sub> (Initial); Age in 1992
	Categorized Dioxin	All RH with a current dioxin measurement, C ≤ 10 ppt lipid-adjusted current dioxin	Unadjusted	Logistic Regression	DXCAT
			Adjusted	Logistic Regression	DXCAT; Covariates; DXCAT x Covariates; Covariates x Covariates
			Longitudinal**	Logistic Regression	DXCAT; Age in 1992
	Log <sub>2</sub> (Current + 1)	All RH with a current dioxin measurement	Unadjusted	Logistic Regression	Log <sub>2</sub> (Current + 1)
			Adjusted	Logistic Regression	Log <sub>2</sub> (Current + 1); Covariates; Log <sub>2</sub> (Current + 1) x Covariates; Covariates x Covariates

\* Dependent variable usually paired difference score of (1992 to 1982) dependent variable values. For some clinical areas, paired difference scores will be (1992 to 1985) differences.

\*\* Analysis performed subject to the constraint that participant was normal at the 1982 Baseline (or 1985) examination.

Note: Log<sub>2</sub>(Initial) = Logarithm (base 2) of estimated initial dioxin level.

Log<sub>2</sub>(Current + 1) = Logarithm (base 2) of (current dioxin level + 1).

DXCAT = Categorized dioxin (incorporating group membership — three categories for Ranch Hands, one category for Comparisons).

RH = Ranch Hand.

C = Comparison.

Analyses using log<sub>2</sub>(initial) and categorized dioxin exposure estimates adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

**Table D-2.**  
**Approximate Power to Detect an Initial Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Discrete Dependent Variable)**

Prevalence of Condition	Relative Risk						
	1.10	1.20	1.30	1.40	1.50	1.75	2.00
0.005	0.06	0.07	0.10	0.14	0.19	0.37	0.59
0.01	0.06	0.09	0.15	0.22	0.32	0.62	0.85
0.02	0.07	0.13	0.24	0.39	0.55	0.87	0.98
0.03	0.08	0.18	0.33	0.52	0.71	0.95	1.00
0.04	0.09	0.22	0.41	0.63	0.81	0.98	1.00
0.05	0.10	0.25	0.49	0.72	0.88	1.00	1.00
0.10	0.15	0.42	0.73	0.92	0.98	1.00	1.00
0.15	0.19	0.54	0.85	0.97	1.00	1.00	1.00
0.20	0.22	0.63	0.91	0.99	1.00	1.00	1.00

**Table D-3.**  
**Approximate Power to Detect an Categorized Dioxin Effect (Low plus High**  
**Ranch Hands versus Comparisons) at a 5 Percent Level of Significance**  
**(Discrete Dependent Variable)**

Prevalence of Condition	Relative Risk						
	1.10	1.20	1.30	1.40	1.50	1.75	2.00
0.005	0.05	0.06	0.06	0.08	0.09	0.13	0.17
0.01	0.05	0.06	0.08	0.10	0.13	0.20	0.29
0.02	0.06	0.08	0.11	0.15	0.20	0.35	0.51
0.03	0.06	0.09	0.14	0.20	0.28	0.48	0.67
0.04	0.06	0.11	0.17	0.25	0.35	0.59	0.79
0.05	0.07	0.12	0.20	0.30	0.41	0.69	0.86
0.10	0.08	0.18	0.33	0.50	0.66	0.92	0.99
0.15	0.10	0.24	0.44	0.64	0.80	0.98	1.00
0.20	0.11	0.28	0.52	0.74	0.88	0.99	1.00

**Table D-4.**  
**Approximate Power to Detect a Lipid-Adjusted Current Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Discrete Dependent Variable)**

Prevalence of Condition	Relative Risk						
	1.10	1.20	1.30	1.40	1.50	1.75	2.00
0.005	0.06	0.09	0.15	0.23	0.33	0.64	0.88
0.01	0.07	0.14	0.25	0.40	0.57	0.90	0.99
0.02	0.09	0.22	0.43	0.66	0.84	0.99	1.00
0.03	0.11	0.31	0.58	0.82	0.94	1.00	1.00
0.04	0.13	0.38	0.70	0.90	0.98	1.00	1.00
0.05	0.15	0.45	0.78	0.95	0.99	1.00	1.00
0.10	0.25	0.71	0.96	1.00	1.00	1.00	1.00
0.15	0.33	0.84	0.99	1.00	1.00	1.00	1.00
0.20	0.39	0.90	1.00	1.00	1.00	1.00	1.00

**Table D-5.**  
**Approximate Power to Detect a Whole-Weight Current Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Discrete Dependent Variable)**

Prevalence of Condition	Relative Risk						
	1.10	1.20	1.30	1.40	1.50	1.75	2.00
0.005	0.06	0.10	0.17	0.27	0.40	0.74	0.94
0.01	0.08	0.16	0.30	0.48	0.66	0.95	1.00
0.02	0.11	0.27	0.51	0.75	0.91	1.00	1.00
0.03	0.13	0.37	0.67	0.89	0.98	1.00	1.00
0.04	0.16	0.46	0.79	0.95	0.99	1.00	1.00
0.05	0.19	0.54	0.86	0.98	1.00	1.00	1.00
0.10	0.31	0.80	0.98	1.00	1.00	1.00	1.00
0.15	0.41	0.91	1.00	1.00	1.00	1.00	1.00
0.20	0.49	0.96	1.00	1.00	1.00	1.00	1.00

**Table D-6.**  
**Approximate Power to Detect an Initial Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Continuous Dependent Variable)**

Mean Change	Coefficient of Variation ( $100\sigma/\mu$ )				
	5	10	25	50	75
0.005	0.99	0.59	0.14	0.07	0.06
0.01	1.00	0.99	0.41	0.14	0.09
0.02	1.00	1.00	0.94	0.41	0.21
0.03	1.00	1.00	1.00	0.74	0.41
0.04	1.00	1.00	1.00	0.94	0.64
0.05	1.00	1.00	1.00	0.99	0.83
0.10	1.00	1.00	1.00	1.00	1.00

**Table D-7.**  
**Approximate Power to Detect an Categorized Dioxin Effect (Low plus High**  
**Ranch Hands versus Comparisons) at a 5 Percent Level of Significance**  
**(Continuous Dependent Variable)**

Mean Change	Coefficient of Variation ( $100\sigma/\mu$ )				
	5	10	25	50	75
0.005	0.46	0.15	0.07	0.05	0.05
0.01	0.96	0.46	0.12	0.07	0.06
0.02	1.00	0.96	0.32	0.12	0.08
0.03	1.00	1.00	0.61	0.20	0.12
0.04	1.00	1.00	0.85	0.32	0.17
0.05	1.00	1.00	0.96	0.46	0.24
0.10	1.00	1.00	1.00	0.96	0.70

**Table D-8.**  
**Approximate Power to Detect a Lipid-Adjusted Current Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Continuous Dependent Variable)**

Mean Change	Coefficient of Variation ( $100\sigma/\mu$ )				
	5	10	25	50	75
0.005	0.86	0.33	0.09	0.06	0.05
0.01	1.00	0.86	0.23	0.09	0.07
0.02	1.00	1.00	0.68	0.23	0.13
0.03	1.00	1.00	0.95	0.44	0.23
0.04	1.00	1.00	1.00	0.68	0.37
0.05	1.00	1.00	1.00	0.86	0.52
0.10	1.00	1.00	1.00	1.00	0.98

**Table D-9.**  
**Approximate Power to Detect a Whole-Weight Current Dioxin Effect**  
**at a 5 Percent Level of Significance**  
**(Continuous Dependent Variable)**

Mean Change	Coefficient of Variation ( $100\sigma/\mu$ )				
	5	10	25	50	75
0.005	1.00	0.72	0.17	0.08	0.06
0.01	1.00	1.00	0.53	0.17	0.10
0.02	1.00	1.00	0.98	0.53	0.27
0.03	1.00	1.00	1.00	0.86	0.53
0.04	1.00	1.00	1.00	0.98	0.77
0.05	1.00	1.00	1.00	1.00	0.92
0.10	1.00	1.00	1.00	1.00	1.00



## **APPENDIX E-1.**

### **Dependent Variable-Covariate Associations for the General Health Assessment**

This appendix contains results of tests of association between each dependent variable and candidate covariates for the adjusted analysis of each dependent variable. Pearson's chi-square test (continuity-adjusted for  $2 \times 2$  tables) is used for significance testing of the associations between each discrete dependent variable and the candidate covariate. When a candidate covariate is continuous in nature (for example, age), the covariate is discretized prior to the analysis of the discrete dependent variable. Pearson's correlation coefficient is used for significance testing of the associations between each continuous dependent variable and a continuous candidate covariate. When a candidate covariate is discrete in nature, means (transformed back to the original scale, if necessary) are presented and an analysis of variance is used to investigate the difference between the means.

**Table E-1-1.**  
**Dependent Variable-Covariate Associations for the General Health Assessment**

Dependent Variable	Level	Age			Race		
		Born $\geq 1942$	Born $< 1942$	p-Value	Black	Non-Black	p-Value
Self-Perception of Health	Fair or Poor	(n=954) 7.4%	(n=1,277) 9.6%	0.082	(n=131) 8.4%	(n=2,100) 8.7%	0.999
Appearance of Illness or Distress	Yes	(n=956) 1.2%	(n=1,277) 2.4%	0.041	(n=131) 1.5%	(n=2,102) 1.9%	0.999
Relative Age Appearance	Older	(n=956) 5.9%	(n=1,277) 6.0%	0.998	(n=131) 1.5%	(n=2,102) 6.2%	0.045
Body Fat (continuous) <sup>a</sup>	Obese	(n=956) $r=0.009$	(n=1,277)	0.681	(n=131) $\bar{x}=22.01$	(n=2,102) $\bar{x}=21.88$	0.784
Body Fat (discrete)		25.0%	25.9%	0.657	29.0%	25.3%	0.402
Sedimentation Rate (continuous) <sup>b</sup>	Abnormal	(n=955) $r=0.214$	(n=1,277)	$<0.001$	(n=131) $\bar{x}=8.97$	(n=2,101) $\bar{x}=8.07$	0.179
Sedimentation Rate (discrete)		17.4%	17.7%	0.891	22.9%	17.2%	0.124

<sup>a</sup> Analysis performed on natural logarithm scale; means transformed from natural logarithm scale.

<sup>b</sup> Analysis performed on natural logarithm of sedimentation rate + 0.1 scale; means transformed from natural logarithm of sedimentation rate + 0.1 scale.

**Table E-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the General Health Assessment**

Dependent Variable	Level	Occupation				Personality Type		
		Officer	Enlisted Flyer	Enlisted Groundcrew	p-Value	Type A	Type B	p-Value
Self-Perception of Health	Fair or Poor	(n=869) 5.9%	(n=365) 11.2%	(n=997) 10.2%	0.001	(n=954) 8.7%	(n=1,275) 8.7%	0.999
Appearance of Illness or Distress	Yes	(n=869) 1.7%	(n=365) 1.9%	(n=999) 2.0%	0.907	--	--	--
Relative Age Appearance	Older	(n=869) 3.6%	(n=365) 8.0%	(n=999) 7.2%	0.001	--	--	--
Body Fat (continuous) <sup>a</sup>		(n=869) $\bar{x}=21.64$	(n=365) $\bar{x}=21.65$	(n=999) $\bar{x}=22.20$	0.039	--	--	--
(discrete)	Obese	22.7%	23.3%	28.8%	0.005	--	--	--
Sedimentation Rate (continuous) <sup>b</sup>		(n=869) $\bar{x}=7.64$	(n=364) $\bar{x}=9.27$	(n=999) $\bar{x}=8.15$	0.002	(n=954) $\bar{x}=7.46$	(n=1,276) $\bar{x}=8.63$	<0.001
(discrete)	Abnormal	14.0%	22.3%	18.9%	0.001	14.9%	19.5%	0.005

Dependent Variable	Level	Caloric Intake (kcal/day)		
		$\leq 2,000$	$> 2,000$	p-Value
Body Fat (continuous) <sup>a</sup>		(n=1,322)	(n=907)	
(discrete)	Obese	27.1%	23.3%	0.048

<sup>a</sup> Analysis performed on natural logarithm scale; means transformed from natural logarithm scale.

<sup>b</sup> Analysis performed on natural logarithm of sedimentation rate + 0.1 scale; means transformed from natural logarithm of sedimentation rate + 0.1 scale.

--: Covariate not applicable for dependent variable.

## APPENDIX E-2.

### Interaction Tables for the General Health Assessment

This appendix contains exposure analyses results of interactions between covariates and group or dioxin. Results are presented for each separate strata of the covariate and include sample sizes, percent abnormal, relative risks, confidence intervals, and p-values for discrete dependent variables. Sample sizes, adjusted means, differences of adjusted means and confidence intervals or adjusted slopes and standard errors, and p-values are given for continuous dependent variables. Means are transformed back to the original scale, if necessary. Chapter 7, Statistical Methods, provides further details on the analytical approaches used in the interaction analyses. The covariate involved in the interaction and a reference to the analysis table in Chapter 9 are given in the heading of each subtable. A summary of the interactions described in this appendix follows.

Appendix E-2 Table	Chapter 9 Table	Dependent Variable	Model	Covariate
E-2-1	9-3	Self-Perception of Health	4 5 6	Age Age Age
E-2-2	9-4	Appearance of Illness or Distress	4 5 6	Age Age Age
E-2-3	9-5	Relative Age Appearance	4	Occupation
E-2-4	9-6	Body Fat (Continuous)	4	Occupation
E-2-5	9-7	Body Fat with Adjustment for Caloric Intake (Continuous)	3 4	Caloric Intake Occupation
E-2-6	9-8	Body Fat (Discrete)	4	Occupation
E-2-7	9-9	Body Fat with Adjustment for Caloric Intake (Discrete)	4	Occupation

**Table E-2-1.**  
**Interaction Table for Self-Perception of Health**

<b>a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Fair or Poor	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
<b>Born ≥ 1942</b>	Low	99	5.1	1.26 (0.98,1.61)	0.067
	Medium	97	4.1		
	High	171	11.7		
<b>Born &lt; 1942</b>	Low	196	7.7	1.12 (0.91,1.39)	0.287
	Medium	203	11.8		
	High	128	18.0		

<b>b) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Fair or Poor	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
<b>Born ≥ 1942</b>	Low	103	3.9	1.27 (1.01,1.59)	0.041
	Medium	96	7.3		
	High	168	10.7		
<b>Born &lt; 1942</b>	Low	197	7.6	1.14 (0.95,1.37)	0.172
	Medium	201	11.4		
	High	129	18.6		

<b>c) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-3)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Fair or Poor	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
<b>Born ≥ 1942</b>	Low	103	3.9	1.18 (0.94,1.49)	0.161
	Medium	96	7.3		
	High	168	10.7		
<b>Born &lt; 1942</b>	Low	196	7.6	1.04 (0.86,1.27)	0.678
	Medium	201	11.4		
	High	129	18.6		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table E-2-2.**  
**Interaction Table for Appearance of Illness or Distress**

<b>a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-4)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Born ≥ 1942</b>	Low	99	0.0	1.25 (0.63,2.50)	0.523
	Medium	97	0.0		
	High	171	1.8		
<b>Born &lt; 1942</b>	Low	196	3.6	0.87 (0.57,1.33)	0.512
	Medium	203	2.0		
	High	128	3.1		

<b>b) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-4)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Born ≥ 1942</b>	Low	103	0.0	1.19 (0.64,2.24)	0.583
	Medium	96	1.0		
	High	168	1.2		
<b>Born &lt; 1942</b>	Low	197	3.6	0.86 (0.62,1.20)	0.383
	Medium	201	2.0		
	High	129	3.1		

<b>c) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Age: Table 9-4)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Born ≥ 1942</b>	Low	103	0.0	1.16 (0.62,2.19)	0.643
	Medium	96	1.0		
	High	168	1.2		
<b>Born &lt; 1942</b>	Low	196	3.6	0.83 (0.59,1.18)	0.299
	Medium	201	2.0		
	High	129	3.1		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table E-2-3.**  
**Interaction Table for Relative Age Appearance**

a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Occupation: Table 9-5)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Older	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
Officer	Low	193	4.1	0.45 (0.24,0.83)	0.011
	Medium	141	1.4		
	High	14	0.0		
Enlisted Flyer	Low	31	12.9	0.92 (0.59,1.44)	0.706
	Medium	57	7.0		
	High	62	9.7		
Enlisted Groundcrew	Low	71	5.6	1.11 (0.85,1.46)	0.443
	Medium	102	2.0		
	High	223	7.6		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

**Table E-2-4.**  
**Interaction Table for Body Fat (Percent)**  
**(Continuous)**

a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Occupation: Table 9-6)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Adjusted Mean	Adjusted Slope (Std. Error) <sup>a</sup>	p-Value
<b>Officer</b>	Low	193	20.63	0.089 (0.015)	<0.001
	Medium	141	23.16		
	High	14	23.79		
<b>Enlisted Flyer</b>	Low	31	19.14	0.082 (0.015)	<0.001
	Medium	57	21.65		
	High	62	23.31		
<b>Enlisted Groundcrew</b>	Low	71	19.11	0.051 (0.007)	<0.001
	Medium	102	21.88		
	High	223	23.27		

<sup>a</sup> Slope and standard error based on natural logarithm of body fat versus log<sub>2</sub> (current dioxin + 1).

Note: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.



**Table E-2-5.**  
**Interaction Table for Body Fat (Percent) with Adjustment for Caloric Intake**  
**(Continuous)**

<b>a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> (Dioxin Category-by-Caloric Intake: Table 9-7)					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Adjusted Mean<sup>a</sup></b>	<b>Difference of Adjusted Mean vs. Comparisons (95% C.I.)<sup>b</sup></b>	<b>p-Value<sup>c</sup></b>
<b>≤2,000 Kcal/Day</b>	Comparison	629	21.94		
	Background RH	205	21.96	0.03 --	0.886
	Low RH	162	22.18	0.24 --	0.245
	High RH	162	21.95	0.01 --	0.949
	Low plus High RH	324	21.72	0.13 --	0.425
<b>&gt;2,000 Kcal/Day</b>	Comparison	432	22.13		
	Background RH	169	21.65	-0.48 --	0.023
	Low RH	98	22.09	-0.04 --	0.869
	High RH	96	21.36	0.77 --	0.003
	Low plus High RH	194	21.72	-0.41 --	0.046

<b>b) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Occupation: Table 9-7)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Adjusted Mean</b>	<b>Adjusted Slope (Std. Error)<sup>d</sup></b>	<b>p-Value</b>
<b>Officer</b>	Low	193	20.60	0.090 (0.015)	<0.001
	Medium	141	23.14		
	High	14	23.78		
<b>Enlisted Flyer</b>	Low	31	19.12	0.082 (0.015)	<0.001
	Medium	57	21.70		
	High	61	23.19		
<b>Enlisted Groundcrew</b>	Low	71	19.32	0.049 (0.007)	<0.001
	Medium	102	21.97		
	High	222	23.25		

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Difference of means after transformation to original scale; confidence interval on difference of means not presented because analysis was performed on natural logarithm scale.

<sup>c</sup> P-value is based on difference of means on natural logarithm scale.

<sup>d</sup> Slope and standard error based on natural logarithm of body fat versus log<sub>2</sub> (current dioxin + 1).

Note: Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

**Table E-2-6.**  
**Interaction Table for Body Fat**  
**(Discrete)**

<b>a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> <b>(Current Dioxin-by-Occupation: Table 9-8)</b>					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>e</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Obese</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Officer</b>	Low	193	13.0	2.10 (1.45,3.03)	<0.001
	Medium	141	29.8		
	High	14	50.0		
<b>Enlisted Flyer</b>	Low	31	6.5	1.89 (1.31,2.72)	0.001
	Medium	57	19.3		
	High	62	34.4		
<b>Enlisted Groundcrew</b>	Low	71	11.3	1.29 (1.12,1.50)	0.001
	Medium	102	27.5		
	High	223	36.0		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

**Table E-2-7.**  
**Interaction Table for Body Fat with Adjustment for Caloric Intake**  
**(Discrete)**

a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Occupation: Table 9-9)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>e</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Obese	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
Officer	Low	193	13.0	2.10 (1.45,3.03)	<0.001
	Medium	141	29.8		
	High	14	50.0		
Enlisted Flyer	Low	31	6.5	1.82 (1.25,2.64)	0.002
	Medium	57	19.3		
	High	61	34.4		
Enlisted Groundcrew	Low	71	11.3	1.29 (1.11,1.50)	0.001
	Medium	102	27.5		
	High	222	36.0		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

## APPENDIX E-3.

### General Health Analysis Tables Occupation Removed from Final Model

This appendix contains results of exposure analyses after occupation has been removed from those final dioxin models (Models 2 through 6) that contained occupation. These analyses are performed to investigate the relationship of the dependent variable to dioxin without removing any effects due to occupation. The format of these tables closely parallels the adjusted panels of Chapter 9 tables. A summary of the tables found in this appendix follows.

Appendix E-3 Table	Chapter 9 Table	Dependent Variable
E-3-1	9-3	Self-Perception of Health
E-3-2	9-4	Relative Age Appearance
E-3-3	9-6	Body Fat (Continuous)
E-3-4	9-7	Body Fat with Adjustment for Caloric Intake (Continuous)
E-3-5	9-8	Body Fat (Discrete)
E-3-6	9-9	Body Fat with Adjustment for Caloric Intake (Discrete)
E-3-7	9-10	Sedimentation Rate (Continuous)
E-3-8	9-11	Sedimentation Rate (Discrete)

**Table E-3-1.**  
**Analysis of Self-Perception of Health**  
**Occupation Removed from Final Model**

<b>a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED</b>			
<b>Analysis Results for Log<sub>2</sub> (Initial Dioxin)<sup>a</sup></b>			
<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
520	1.30 (1.06,1.58)	0.010	AGE (p=0.025)

<sup>a</sup> Adjusted for percent body fat at time of duty in SEA, change in percent body fat from time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

<sup>b</sup> Relative risk for a twofold increase in initial dioxin.

<b>b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>ab</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
Comparison	1,061			AGE (p=0.003)
Background RH	374	0.95 (0.59,1.53)	0.842	
Low RH	260	1.50 (0.94,2.39)	0.090	
High RH	260	2.55 (1.68,3.89)	<0.001	
Low plus High RH	520	1.98 (1.39,2.82)	<0.001	

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Adjusted for percent body fat at time of duty in SEA, change in percent body fat from time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table E-3-1. (Continued)**  
**Analysis of Self-Perception of Health**  
**Occupation Removed from Final Model**

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
Model <sup>a</sup>	Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks
4	894	1.35 (1.16,1.57)	<0.001	AGE (p=0.001)
5	894	1.33 (1.16,1.53)	<0.001	AGE (p=0.001)
6 <sup>c</sup>	893	1.25 (1.08,1.45)	0.003	AGE (p=0.003)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

<sup>c</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

**Table E-3-2.**  
**Analysis for Relative Age Appearance**  
**Occupation Removed from Final Model**

<b>a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>ab</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
Comparison	1,063			RACE (p=0.007)
Background RH	374	0.67 (0.38,1.18)	0.166	
Low RH	260	0.70 (0.36,1.35)	0.285	
High RH	260	1.30 (0.77,2.19)	0.329	
Low plus High RH	520	1.00 (0.64,1.55)	0.984	

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Adjusted for percent body fat at time of duty in SEA, change in percent body fat from time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq$  10 ppt.

Background (Ranch Hand): Current Dioxin  $\leq$  10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin  $\leq$  143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table E-3-3.**  
**Analysis of Body Fat (Percent) (Continuous)**  
**Occupation Removed from Final Model**

a) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
Model <sup>b</sup>	Current Dioxin Category Adjusted Mean <sup>a</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	Low	Medium	High	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
4	20.07 (295)	22.34 (300)	23.16 (299)	0.089	0.0489 (0.0053)	<0.001	AGE (p=0.127)
5	20.00 (300)	22.32 (297)	23.30 (297)	0.098	0.0439 (0.0045)	<0.001	AGE (p=0.173)
6 <sup>d</sup>	20.11 (299)	22.34 (297)	23.17 (297)	0.092	0.0412 (0.0047)	<0.001	

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>c</sup> Slope and standard error based on natural logarithm of body fat versus log<sub>2</sub> (current dioxin + 1).

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.



**Table E-3-4.**  
**Analysis of Body Fat (Percent) with Adjustment for Caloric Intake (Continuous)**  
**Occupation Removed from Final Model**

a) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
Model <sup>b</sup>	Current Dioxin Category Adjusted Mean <sup>a</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	Low	Medium	High	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
4	20.10 (295)	22.32 (300)	23.12 (297)	0.095	0.0481 (0.0053)	<0.001	AGE*CALINT (p=0.081)
5	20.03 (300)	22.32 (297)	23.26 (295)	0.104	0.0432 (0.0045)	<0.001	AGE*CALINT (p=0.095)
6 <sup>d</sup>	20.12 (299)	22.32 (297)	23.18 (295)	0.100	0.0422 (0.0048)	<0.001	AGE*CALINT (p=0.101)

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>c</sup> Slope and standard error based on natural logarithm of body fat versus log<sub>2</sub> (current dioxin + 1).

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table E-3-5.**  
**Analysis of Body Fat (Discrete)**  
**Occupation Removed from Final Model**

a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)				
Model <sup>a</sup>	n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks
4	894	1.42 (1.27,1.58)	<0.001	AGE*RACE (p=0.059)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

**Table E-3-6.**  
**Analysis of Body Fat (Percent) with Adjustment for Caloric Intake (Discrete)**  
**Occupation Removed from Final Model**

a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)				
Model <sup>a</sup>	n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks
4	892	1.41 (1.26,1.58)	<0.001	AGE*RACE (p=0.061) CALINT (p=0.407)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

**Table E-3-7.**  
**Analysis of Sedimentation Rate (mm/hr) (Continuous)**  
**Occupation Removed from Final Model**

a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED					
Dioxin Category	n	Adj. Mean <sup>ab</sup>	Difference of Adj. Mean vs. Comparisons (95% C.I.) <sup>c</sup>	p-Value <sup>d</sup>	Covariate Remarks
Comparison	1,062	8.04			AGE*PERS (p=0.004)
Background RH	374	7.71	-0.33 --	0.409	
Low RH	259	8.69	0.66 --	0.176	
High RH	260	9.21	1.18 --	0.019	
Low plus High RH	519	8.95	0.90 --	0.017	

<sup>a</sup> Transformed from natural logarithm scale of sedimentation rate + 0.1.

<sup>b</sup> Adjusted for percent body fat at time of duty in SEA, change in percent body fat from time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

<sup>c</sup> Difference of adjusted means after transformation to original scale; confidence interval on difference of adjusted means not presented because analysis was performed on natural logarithm scale of sedimentation rate + 0.1.

<sup>d</sup> P-value is based on difference of means on natural logarithm scale of sedimentation rate + 0.1.

Note: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

b) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
Model <sup>b</sup>	Current Dioxin Category Adjusted Mean <sup>a</sup> /(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	Low	Medium	High	R <sup>2</sup>	Adj. Slope (Std. Error) <sup>c</sup>	p-Value	Covariate Remarks
4	7.29 (295)	8.27 (299)	9.53 (299)	0.067	0.0746 (0.0198)	<0.001	AGE (p<0.001) PERS (p=0.008)
5	7.22 (300)	8.32 (296)	9.57 (297)	0.072	0.0733 (0.0168)	<0.001	AGE (p<0.001) PERS (p=0.008)
6 <sup>d</sup>	7.54 (299)	8.37 (296)	9.06 (297)	0.086	0.0524 (0.0182)	0.004	AGE (p<0.001) PERS (p=0.003)

<sup>a</sup> Transformed from natural logarithm scale of sedimentation rate + 0.1.

<sup>b</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>c</sup> Slope and standard error based on natural logarithm of sedimentation rate of + 0.1 versus log<sub>2</sub> (current dioxin + 1).

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table E-3-8.**  
**Analysis of Sedimentation Rate (Discrete)**  
**Occupation Removed from Final Model**

<b>a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>ab</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
Comparison	1,062			AGE*PERS (p=0.005)
Background RH	374	0.78 (0.56,1.11)	0.167	
Low RH	259	1.28 (0.91,1.81)	0.150	
High RH	260	1.25 (0.88,1.78)	0.213	
Low plus High RH	519	1.27 (0.97,1.66)	0.086	

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Adjusted for percent body fat at time of duty in SEA, change in percent body fat from time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq$  10 ppt.

Background (Ranch Hand): Current Dioxin  $\leq$  10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin  $\leq$  143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

<b>b) MODELS 4 AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b>				
<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>				
<b>Model<sup>a</sup></b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
4	894	1.20 (1.06,1.35)	0.003	AGE (p=0.003)
6 <sup>c</sup>	893	1.15 (1.02,1.29)	0.021	AGE (p=0.004) RACE (p=0.064)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).

Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

<sup>c</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

## **APPENDIX F-1.**

### **Dependent Variable-Covariate Associations for the Neoplasia Assessment and Re-Analysis of Table 10-14**

This appendix contains results of tests of association between each dependent variable and candidate covariates for the adjusted analysis. Pearson's chi-square test (continuity-adjusted for  $2 \times 2$  tables) is used for significance testing of the associations between each discrete dependent variable and the candidate covariate. When a candidate covariate is continuous in nature (for example, age), the covariate is discretized prior to the analysis of the discrete dependent variable. Pearson's correlation coefficient is used for significance testing of the associations between the natural logarithm of prostate-specific antigen in its continuous form and a continuous candidate covariate. When a candidate covariate is discrete in nature, means transformed from the natural logarithm scale to the original scale are presented, and an analysis of variance is used to investigate the difference between the means on the natural logarithm scale.

Also included in this appendix is a re-analysis of Table 10-14, which showed results of the variable melanoma with a participant miscoded. After the analyses were well underway, an error in the classification of one participant's race was discovered. He was listed in the data base as Black, when he was actually non-Black. The participant was a 50-year-old enlisted flyer Comparison, with a current serum dioxin value  $< 10$  ppt. This participant had a melanoma and was excluded from the analyses of melanomas because he was erroneously coded as Black. Appendix Table F-1-2 shows results of additional analyses of melanomas performed with this participant properly coded as non-Black. These results did not indicate any change in conclusions based on this misclassification.

**Table F-1-1.**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Age			Race		
		Born ≥1942	Born <1942	p-Value	Black	Non-Black	p-Value
Any Skin Neoplasm		(n=881)	(n=1,203)				
	Yes	25.3%	32.8%	<0.001	--	--	--
Malignant Skin Neoplasm		(n=881)	(n=1,203)				
	Yes	7.6%	16.3%	<0.001	--	--	--
Benign Skin Neoplasm		(n=951)	(n=1,263)		(n=130)	(n=2,084)	
	Yes	18.5%	18.5%	0.999	18.5%	18.5%	0.999
Skin Neoplasm of Uncertain Behavior or Unspecified Nature		(n=881)	(n=1,203)				
	Yes	0.5%	0.6%	0.927	--	--	--
Any Basal Cell Carcinoma		(n=881)	(n=1,203)				
	Yes	6.0%	14.1%	<0.001	--	--	--
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck		(n=881)	(n=1,203)				
	Yes	4.2%	11.5%	<0.001	--	--	--
Basal Cell Carcinoma on Trunk		(n=881)	(n=1,203)				
	Yes	1.9%	4.2%	0.007	--	--	--
Basal Cell Carcinoma on Upper Extremities		(n=881)	(n=1,203)				
	Yes	0.8%	2.5%	0.006	--	--	--
Basal Cell Carcinoma on Lower Extremities		(n=881)	(n=1,203)				
	Yes	0.1%	0.3%	0.847	--	--	--
Squamous Cell Carcinoma		(n=881)	(n=1,203)				
	Yes	0.8%	1.6%	0.163	--	--	--
Nonmelanoma		(n=881)	(n=1,203)				
	Yes	6.7%	15.6%	<0.001	--	--	--
Melanoma		(n=881)	(n=1,203)				
	Yes	1.0%	1.0%	0.999	--	--	--
Any Systemic Neoplasm		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	14.1%	25.8%	<0.001	21.5%	20.7%	0.904
Malignant Systemic Neoplasm		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	1.5%	6.9%	<0.001	3.9%	4.6%	0.841
Benign Systemic Neoplasm		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	12.0%	18.9%	<0.001	17.7%	15.8%	0.657
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	1.2%	2.1%	0.142	0.8%	1.7%	0.639
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	0.3%	1.3%	0.021	0.8%	0.9%	0.999
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		(n=954)	(n=1,269)		(n=130)	(n=2,093)	
	Yes	0.1%	0.7%	0.074	0.8%	0.4%	0.999

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Occupation			p-Value
		Officer	Enlisted Flyer	Enlisted Groundcrew	
Any Skin Neoplasm	Yes	(n=847) 33.4%	(n=337) 28.5%	(n=900) 26.4%	0.005
Malignant Skin Neoplasm	Yes	(n=847) 16.7%	(n=337) 13.4%	(n=900) 8.6%	<0.001
Benign Skin Neoplasm	Yes	(n=860) 19.1%	(n=362) 16.0%	(n=992) 18.9%	0.419
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=847) 0.6%	(n=337) 0.0%	(n=900) 0.7%	0.336
Any Basal Cell Carcinoma	Yes	(n=847) 13.8%	(n=337) 12.2%	(n=900) 7.1%	<0.001
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=847) 10.5%	(n=337) 10.1%	(n=900) 5.8%	0.001
Basal Cell Carcinoma on Trunk	Yes	(n=847) 5.1%	(n=337) 3.0%	(n=900) 1.6%	<0.001
Basal Cell Carcinoma on Upper Extremities	Yes	(n=847) 3.1%	(n=337) 0.6%	(n=900) 1.0%	0.001
Basal Cell Carcinoma on Lower Extremities	Yes	(n=847) 0.2%	(n=337) 0.0%	(n=900) 0.2%	0.678
Squamous Cell Carcinoma	Yes	(n=847) 1.8%	(n=337) 1.2%	(n=900) 0.8%	0.173
Nonmelanoma	Yes	(n=847) 15.6%	(n=337) 13.4%	(n=900) 7.8%	<0.001
Melanoma	Yes	(n=847) 1.3%	(n=337) 0.0%	(n=900) 1.1%	0.120
Any Systemic Neoplasm	Yes	(n=863) 22.3%	(n=363) 23.1%	(n=997) 18.6%	0.069
Malignant Systemic Neoplasm	Yes	(n=863) 6.3%	(n=363) 6.6%	(n=997) 2.4%	<0.001
Benign Systemic Neoplasm	Yes	(n=863) 15.3%	(n=363) 18.2%	(n=997) 15.7%	0.429
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=863) 2.4%	(n=363) 0.6%	(n=997) 1.4%	0.043
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck	Yes	(n=863) 0.9%	(n=363) 1.7%	(n=997) 0.6%	0.191
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx	Yes	(n=863) 0.4%	(n=363) 1.1%	(n=997) 0.3%	0.126

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Color <sup>a</sup>			Hair Color		
		Non-Peach	Peach	p-Value	Black or Dark Brown	Other <sup>b</sup>	p-Value
Any Skin Neoplasm	Yes	(n=433) 24.5%	(n=1,646) 30.9%	0.011	(n=1,427) 28.3%	(n=653) 32.3%	0.071
Malignant Skin Neoplasm	Yes	(n=433) 9.7%	(n=1,646) 13.4%	0.050	(n=1,427) 11.7%	(n=653) 14.6%	0.081
Benign Skin Neoplasm	Yes	(n=553) 16.8%	(n=1,655) 19.0%	0.285	(n=1,550) 18.2%	(n=659) 19.1%	0.650
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=433) 0.7%	(n=1,646) 0.5%	0.876	(n=1,427) 0.5%	(n=653) 0.6%	0.976
Any Basal Cell Carcinoma	Yes	(n=433) 8.3%	(n=1,646) 11.3%	0.089	(n=1,427) 9.9%	(n=653) 12.4%	0.098
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=433) 6.9%	(n=1,646) 8.8%	0.247	(n=1,427) 7.3%	(n=653) 10.9%	0.008
Basal Cell Carcinoma on Trunk	Yes	(n=433) 2.1%	(n=1,646) 3.5%	0.173	(n=1,427) 3.2%	(n=653) 3.4%	0.901
Basal Cell Carcinoma on Upper Extremities	Yes	(n=433) 1.2%	(n=1,646) 1.9%	0.367	(n=1,427) 1.5%	(n=653) 2.3%	0.303
Basal Cell Carcinoma on Lower Extremities	Yes	(n=433) 0.2%	(n=1,646) 0.2%	0.999	(n=1,427) 0.1%	(n=653) 0.3%	0.792
Squamous Cell Carcinoma	Yes	(n=433) 0.7%	(n=1,646) 1.4%	0.352	(n=1,427) 1.1%	(n=653) 1.5%	0.570
Nonmelanoma	Yes	(n=433) 8.8%	(n=1,646) 12.7%	0.031	(n=1,427) 10.9%	(n=653) 14.1%	0.042
Melanoma	Yes	(n=433) 0.9%	(n=1,646) 1.0%	0.999	(n=1,427) 1.1%	(n=653) 0.8%	0.706
Any Systemic Neoplasm		--	--	--	--	--	--
Malignant Systemic Neoplasm		--	--	--	--	--	--
Benign Systemic Neoplasm		--	--	--	--	--	--
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--	--	--
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	--	--	--
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	--	--	--

<sup>a</sup> Non-Peach = Dark, medium, or pale skin.

Peach = Dark peach or pale peach skin.

<sup>b</sup> Other = Bald, light brown, blonde, or red hair.

--: Covariate not applicable for dependent variable.



**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Eye Color			p-Value
		Brown	Hazel or Green	Gray or Blue	
Any Skin Neoplasm	Yes	(n=619) 27.0%	(n=562) 31.0%	(n=897) 30.4%	0.242
Malignant Skin Neoplasm	Yes	(n=619) 10.8%	(n=562) 12.5%	(n=897) 13.8%	0.222
Benign Skin Neoplasm	Yes	(n=742) 17.9%	(n=566) 20.0%	(n=898) 18.0%	0.579
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=619) 1.0%	(n=562) 0.5%	(n=897) 0.2%	0.144
Any Basal Cell Carcinoma	Yes	(n=619) 8.9%	(n=562) 11.4%	(n=897) 11.5%	0.224
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=619) 7.3%	(n=562) 8.7%	(n=897) 9.0%	0.458
Basal Cell Carcinoma on Trunk	Yes	(n=619) 2.3%	(n=562) 4.1%	(n=897) 3.3%	0.198
Basal Cell Carcinoma on Upper Extremities	Yes	(n=619) 0.8%	(n=562) 2.5%	(n=897) 2.0%	0.073
Basal Cell Carcinoma on Lower Extremities	Yes	(n=619) 0.2%	(n=562) 0.2%	(n=897) 0.2%	0.961
Squamous Cell Carcinoma	Yes	(n=619) 0.8%	(n=562) 0.9%	(n=897) 1.8%	0.162
Nonmelanoma	Yes	(n=619) 10.0%	(n=562) 12.1%	(n=897) 12.9%	0.219
Melanoma	Yes	(n=619) 1.0%	(n=562) 0.7%	(n=897) 1.1%	0.745
Any Systemic Neoplasm		--	--	--	--
Malignant Systemic Neoplasm		--	--	--	--
Benign Systemic Neoplasm		--	--	--	--
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	--
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	--

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Reaction to Sun after at Least 2 Hours Exposure				p-Value
		No Reaction	Becomes Red	Burns	Painfully Burns	
Any Skin Neoplasm	Yes	(n=800) 24.3%	(n=832) 32.8%	(n=301) 32.2%	(n=147) 35.4%	<0.001
Malignant Skin Neoplasm	Yes	(n=800) 7.6%	(n=832) 15.0%	(n=301) 16.3%	(n=147) 19.1%	<0.001
Benign Skin Neoplasm	Yes	(n=905) 17.6%	(n=846) 19.4%	(n=310) 18.1%	(n=148) 19.6%	0.773
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=800) 0.6%	(n=832) 0.5%	(n=301) 0.7%	(n=147) 0.0%	0.786
Any Basal Cell Carcinoma	Yes	(n=800) 5.6%	(n=832) 13.6%	(n=301) 13.6%	(n=147) 15.7%	<0.001
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=800) 4.3%	(n=832) 10.3%	(n=301) 11.0%	(n=147) 15.0%	<0.001
Basal Cell Carcinoma on Trunk	Yes	(n=800) 1.4%	(n=832) 4.5%	(n=301) 4.7%	(n=147) 3.4%	0.002
Basal Cell Carcinoma on Upper Extremities	Yes	(n=800) 0.9%	(n=832) 2.4%	(n=301) 2.0%	(n=147) 2.7%	0.093
Basal Cell Carcinoma on Lower Extremities	Yes	(n=800) 0.3%	(n=832) 0.2%	(n=301) 0.0%	(n=147) 0.0%	0.777
Squamous Cell Carcinoma	Yes	(n=800) 0.9%	(n=832) 1.2%	(n=301) 2.0%	(n=147) 2.0%	0.389
Nonmelanoma	Yes	(n=800) 6.8%	(n=832) 14.4%	(n=301) 15.6%	(n=147) 17.7%	<0.001
Melanoma	Yes	(n=800) 0.9%	(n=832) 0.7%	(n=301) 1.3%	(n=147) 2.7%	0.141
Any Systemic Neoplasm		--	--	--	--	--
Malignant Systemic Neoplasm		--	--	--	--	--
Benign Systemic Neoplasm		--	--	--	--	--
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--	--
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	--	--
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	--	--

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Reaction to Sun after Repeated Exposures				p-Value
		Deeply Tanned	Moderately Tanned	Mildly Tanned	Freckled-No Tan	
Any Skin Neoplasm	Yes	(n=601) 25.5%	(n=1,070) 30.3%	(n=358) 33.2%	(n=44) 40.9%	0.017
Malignant Skin Neoplasm	Yes	(n=601) 7.8%	(n=1,070) 13.1%	(n=358) 16.5%	(n=44) 36.4%	<0.001
Benign Skin Neoplasm	Yes	(n=672) 17.9%	(n=1,112) 19.4%	(n=367) 18.5%	(n=46) 6.5%	0.159
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=601) 1.2%	(n=1,070) 0.1%	(n=358) 0.3%	(n=44) 2.3%	0.006
Any Basal Cell Carcinoma	Yes	(n=601) 6.5%	(n=1,070) 10.9%	(n=358) 14.3%	(n=44) 31.8%	<0.001
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=601) 5.5%	(n=1,070) 8.3%	(n=358) 10.6%	(n=44) 31.8%	<0.001
Basal Cell Carcinoma on Trunk	Yes	(n=601) 1.2%	(n=1,070) 3.7%	(n=358) 4.8%	(n=44) 6.8%	0.004
Basal Cell Carcinoma on Upper Extremities	Yes	(n=601) 0.5%	(n=1,070) 2.0%	(n=358) 3.1%	(n=44) 4.6%	0.011
Basal Cell Carcinoma on Lower Extremities	Yes	(n=601) 0.5%	(n=1,070) 0.0%	(n=358) 0.3%	(n=44) 0.0%	0.156
Squamous Cell Carcinoma	Yes	(n=601) 0.5%	(n=1,070) 1.5%	(n=358) 1.4%	(n=44) 4.6%	0.067
Nonmelanoma	Yes	(n=601) 7.2%	(n=1,070) 12.3%	(n=358) 15.6%	(n=44) 34.1%	<0.001
Melanoma	Yes	(n=601) 0.7%	(n=1,070) 1.1%	(n=358) 1.1%	(n=44) 2.3%	0.663
Any Systemic Neoplasm		--	--	--	--	--
Malignant Systemic Neoplasm		--	--	--	--	--
Benign Systemic Neoplasm		--	--	--	--	--
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--	--
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	--	--
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	--	--

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Composite Sun Reaction Index <sup>c</sup>			p-Value
		Low	Medium	High	
Any Skin Neoplasm	Yes	(n=1,451) 28.5%	(n=461) 30.8%	(n=169) 36.7%	0.071
Malignant Skin Neoplasm	Yes	(n=1,451) 10.5%	(n=461) 15.8%	(n=169) 21.9%	<0.001
Benign Skin Neoplasm	Yes	(n=1,561) 19.0%	(n=477) 17.0%	(n=172) 18.0%	0.594
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=1,451) 0.6%	(n=461) 0.2%	(n=169) 0.6%	0.578
Any Basal Cell Carcinoma	Yes	(n=1,451) 8.8%	(n=461) 13.5%	(n=169) 18.9%	<0.001
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=1,451) 7.0%	(n=461) 9.3%	(n=169) 18.3%	<0.001
Basal Cell Carcinoma on Trunk	Yes	(n=1,451) 2.6%	(n=461) 5.2%	(n=169) 3.6%	0.018
Basal Cell Carcinoma on Upper Extremities	Yes	(n=1,451) 1.3%	(n=461) 2.8%	(n=169) 3.0%	0.049
Basal Cell Carcinoma on Lower Extremities	Yes	(n=1,451) 0.2%	(n=461) 0.2%	(n=169) 0.0%	0.837
Squamous Cell Carcinoma	Yes	(n=1,451) 1.0%	(n=461) 2.0%	(n=169) 1.8%	0.204
Nonmelanoma	Yes	(n=1,451) 9.8%	(n=461) 15.2%	(n=169) 20.7%	<0.001
Melanoma	Yes	(n=1,451) 0.8%	(n=461) 1.1%	(n=169) 2.4%	0.163
Any Systemic Neoplasm		--	--	--	--
Malignant Systemic Neoplasm		--	--	--	--
Benign Systemic Neoplasm		--	--	--	--
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	--
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	--

<sup>c</sup> Low = Painfully burns after at least 2 hours exposure or freckles with no tan after repeated exposures.  
Medium = Burns after at least 2 hours exposure or mildly tans after repeated exposures.  
High = All other reactions.

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Average Lifetime Residential Latitude			Asbestos Exposure		
		<37°	≥37°	p-Value	No	Yes	p-Value
Any Skin Neoplasm		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	31.7%	28.0%	0.074	29.7%	29.4%	0.923
Malignant Skin Neoplasm		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	15.2%	10.3%	0.001	13.3%	10.7%	0.121
Benign Skin Neoplasm		(n=1,083)	(n=1,108)		(n=1,602)	(n=612)	
	Yes	17.7%	19.3%	0.368	18.1%	19.4%	0.505
Skin Neoplasm of Uncertain Behavior or Unspecified Nature		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	0.7%	0.4%	0.489	0.4%	0.9%	0.296
Any Basal Cell Carcinoma		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	13.5%	8.1%	<0.001	11.2%	9.3%	0.238
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	10.9%	6.1%	<0.001	8.6%	7.8%	0.632
Basal Cell Carcinoma on Trunk		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	4.2%	2.3%	0.019	3.8%	1.8%	0.034
Basal Cell Carcinoma on Upper Extremities		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	2.3%	1.3%	0.137	2.1%	0.9%	0.094
Basal Cell Carcinoma on Lower Extremities		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	0.1%	0.3%	0.654	0.1%	0.4%	0.635
Squamous Cell Carcinoma		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	1.7%	0.9%	0.129	1.5%	0.7%	0.264
Nonmelanoma		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	14.9%	9.1%	<0.001	12.6%	9.8%	0.090
Melanoma		(n=1,004)	(n=1,058)		(n=1,522)	(n=562)	
	Yes	0.6%	1.4%	0.102	1.1%	0.9%	0.936
Any Systemic Neoplasm		--	--	--	(n=1,607)	(n=616)	
	Yes				20.9%	20.3%	0.748
Malignant Systemic Neoplasm		--	--	--	(n=1,607)	(n=616)	
	Yes				4.8%	4.1%	0.531
Benign Systemic Neoplasm		--	--	--	(n=1,607)	(n=616)	
	Yes				16.1%	15.6%	0.836
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	(n=1,607)	(n=616)	
	Yes				1.7%	1.5%	0.780
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		--	--	--	(n=1,607)	(n=616)	
	Yes				0.9%	0.8%	0.983
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		--	--	--	(n=1,607)	(n=616)	
	Yes				0.4%	0.5%	0.999

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Ionizing Radiation Exposure			Industrial Chemical Exposure		
		No	Yes	p-Value	No	Yes	p-Value
Any Skin Neoplasm	Yes	(n=1,588) 28.6%	(n=496) 32.9%	0.078	(n=868) 30.3%	(n=1,216) 29.1%	0.591
Malignant Skin Neoplasm	Yes	(n=1,588) 12.0%	(n=496) 14.5%	0.168	(n=868) 13.7%	(n=1,216) 11.8%	0.231
Benign Skin Neoplasm	Yes	(n=1,674) 17.9%	(n=540) 20.4%	0.214	(n=915) 18.8%	(n=1,299) 18.2%	0.784
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=1,588) 0.6%	(n=496) 0.4%	0.933	(n=868) 0.5%	(n=1,216) 0.6%	0.960
Any Basal Cell Carcinoma	Yes	(n=1,588) 10.1%	(n=496) 12.5%	0.149	(n=868) 11.5%	(n=1,216) 10.0%	0.311
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=1,588) 7.9%	(n=496) 10.1%	0.145	(n=868) 9.1%	(n=1,216) 7.9%	0.369
Basal Cell Carcinoma on Trunk	Yes	(n=1,588) 3.1%	(n=496) 3.6%	0.650	(n=868) 3.9%	(n=1,216) 2.7%	0.159
Basal Cell Carcinoma on Upper Extremities	Yes	(n=1,588) 1.8%	(n=496) 1.6%	0.905	(n=868) 2.0%	(n=1,216) 1.6%	0.714
Basal Cell Carcinoma on Lower Extremities	Yes	(n=1,588) 0.3%	(n=496) 0.0%	0.595	(n=868) 0.0%	(n=1,216) 0.3%	0.237
Squamous Cell Carcinoma	Yes	(n=1,588) 1.1%	(n=496) 1.6%	0.543	(n=868) 1.6%	(n=1,216) 1.0%	0.285
Nonmelanoma	Yes	(n=1,588) 11.3%	(n=496) 13.7%	0.166	(n=868) 13.3%	(n=1,216) 10.9%	0.110
Melanoma	Yes	(n=1,588) 1.0%	(n=496) 1.0%	0.999	(n=868) 0.6%	(n=1,216) 1.3%	0.149
Any Systemic Neoplasm	Yes	(n=1,677) 20.6%	(n=546) 21.1%	0.877	(n=918) 23.9%	(n=1,305) 18.5%	0.003
Malignant Systemic Neoplasm	Yes	(n=1,677) 4.2%	(n=546) 5.7%	0.200	(n=918) 5.8%	(n=1,305) 3.8%	0.033
Benign Systemic Neoplasm	Yes	(n=1,677) 16.2%	(n=546) 15.2%	0.642	(n=918) 18.3%	(n=1,305) 14.3%	0.012
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=1,677) 1.6%	(n=546) 2.0%	0.586	(n=918) 2.0%	(n=1,305) 1.5%	0.455
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck	Yes	(n=1,677) 0.8%	(n=546) 1.1%	0.759	(n=918) 1.1%	(n=1,305) 0.8%	0.571
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx	Yes	(n=1,677) 0.3%	(n=546) 0.9%	0.132	(n=918) 0.5%	(n=1,305) 0.4%	0.812

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Herbicide Exposure			Insecticide Exposure		
		No	Yes	p-Value	No	Yes	p-Value
Any Skin Neoplasm		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	27.5%	30.9%	0.109	28.5%	30.1%	0.472
Malignant Skin Neoplasm		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	11.5%	13.3%	0.237	11.5%	13.1%	0.352
Benign Skin Neoplasm		(n=838)	(n=1,376)		(n=700)	(n=1,514)	
	Yes	17.5%	19.0%	0.409	18.3%	18.6%	0.924
Skin Neoplasm of Uncertain Behavior or Unspecified Nature		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	0.6%	0.5%	0.827	0.6%	0.5%	0.964
Any Basal Cell Carcinoma		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	9.2%	11.6%	0.100	9.1%	11.4%	0.135
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	7.4%	9.0%	0.221	7.4%	8.9%	0.300
Basal Cell Carcinoma on Trunk		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	2.4%	3.7%	0.139	2.8%	3.4%	0.520
Basal Cell Carcinoma on Upper Extremities		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	1.7%	1.9%	0.876	1.5%	1.9%	0.710
Basal Cell Carcinoma on Lower Extremities		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	0.3%	0.2%	0.999	0.0%	0.3%	0.419
Squamous Cell Carcinoma		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	1.5%	1.1%	0.490	1.7%	1.1%	0.308
Nonmelanoma		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	10.8%	12.5%	0.284	10.8%	12.3%	0.339
Melanoma		(n=786)	(n=1,298)		(n=650)	(n=1,434)	
	Yes	0.8%	1.2%	0.520	1.1%	1.0%	0.999
Any Systemic Neoplasm		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	19.3%	21.6%	0.215	20.8%	20.7%	0.988
Malignant Systemic Neoplasm		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	4.4%	4.7%	0.835	4.9%	4.5%	0.771
Benign Systemic Neoplasm		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	14.5%	16.8%	0.184	15.8%	16.0%	0.987
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	1.3%	1.9%	0.399	1.7%	1.6%	0.999
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	0.7%	1.0%	0.627	0.9%	0.9%	0.999
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx		(n=839)	(n=1,384)		(n=701)	(n=1,522)	
	Yes	0.4%	0.5%	0.858	0.4%	0.5%	0.999

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Degreasing Chemical Exposure		
		No	Yes	p-Value
Any Skin Neoplasm	Yes	(n=770) 30.9%	(n=1,314) 28.8%	0.343
Malignant Skin Neoplasm	Yes	(n=770) 14.4%	(n=1,314) 11.6%	0.069
Benign Skin Neoplasm	Yes	(n=820) 18.4%	(n=1,394) 18.5%	0.999
Skin Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=770) 0.4%	(n=1,314) 0.6%	0.724
Any Basal Cell Carcinoma	Yes	(n=770) 11.6%	(n=1,314) 10.1%	0.341
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck	Yes	(n=770) 9.0%	(n=1,314) 8.1%	0.530
Basal Cell Carcinoma on Trunk	Yes	(n=770) 3.9%	(n=1,314) 2.8%	0.222
Basal Cell Carcinoma on Upper Extremities	Yes	(n=770) 2.0%	(n=1,314) 1.7%	0.776
Basal Cell Carcinoma on Lower Extremities	Yes	(n=770) 0.1%	(n=1,314) 0.2%	0.999
Squamous Cell Carcinoma	Yes	(n=770) 1.7%	(n=1,314) 1.0%	0.237
Nonmelanoma	Yes	(n=770) 13.4%	(n=1,314) 11.0%	0.115
Melanoma	Yes	(n=770) 1.3%	(n=1,314) 0.8%	0.429
Any Systemic Neoplasm	Yes	(n=822) 22.0%	(n=1,401) 20.0%	0.277
Malignant Systemic Neoplasm	Yes	(n=822) 5.4%	(n=1,401) 4.1%	0.255
Benign Systemic Neoplasm	Yes	(n=822) 16.3%	(n=1,401) 15.7%	0.755
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=822) 2.2%	(n=1,401) 1.4%	0.190
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck	Yes	(n=822) 1.1%	(n=1,401) 0.8%	0.607
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx	Yes	(n=822) 0.5%	(n=1,401) 0.4%	0.999



**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Lifetime Cigarette Smoking History (Pack-years)			p-Value
		0	>0-10	>10	
Any Skin Neoplasm		--	--	--	--
Malignant Skin Neoplasm		--	--	--	--
Benign Skin Neoplasm		--	--	--	--
Skin Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--
Any Basal Cell Carcinoma		--	--	--	--
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck		--	--	--	--
Basal Cell Carcinoma on Trunk		--	--	--	--
Basal Cell Carcinoma on Upper Extremities		--	--	--	--
Basal Cell Carcinoma on Lower Extremities		--	--	--	--
Squamous Cell Carcinoma		--	--	--	--
Nonmelanoma		--	--	--	--
Melanoma		--	--	--	--
Any Systemic Neoplasm	Yes	(n=608) 19.7%	(n=680) 18.1%	(n=932) 23.3%	0.031
Malignant Systemic Neoplasm	Yes	(n=608) 4.3%	(n=680) 2.7%	(n=932) 6.2%	0.003
Benign Systemic Neoplasm	Yes	(n=608) 15.6%	(n=680) 15.4%	(n=932) 16.5%	0.815
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=608) 1.2%	(n=680) 1.5%	(n=932) 2.0%	0.376
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck	Yes	(n=608) 0.7%	(n=680) 0.4%	(n=932) 1.4%	0.102
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx	Yes	(n=608) 0.3%	(n=680) 0.2%	(n=932) 0.8%	0.176

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Lifetime Alcohol History (Drink-years)			p-Value
		0	>0-40	>40	
Any Skin Neoplasm		--	--	--	--
Malignant Skin Neoplasm		--	--	--	--
Benign Skin Neoplasm		--	--	--	--
Skin Neoplasm of Uncertain Behavior or Unspecified Nature		--	--	--	--
Any Basal Cell Carcinoma		--	--	--	--
Basal Cell Carcinoma on Eye, Ear, Face, Head, or Neck		--	--	--	--
Basal Cell Carcinoma on Trunk		--	--	--	--
Basal Cell Carcinoma on Upper Extremities		--	--	--	--
Basal Cell Carcinoma on Lower Extremities		--	--	--	--
Squamous Cell Carcinoma		--	--	--	--
Nonmelanoma		--	--	--	--
Melanoma		--	--	--	--
Any Systemic Neoplasm	Yes	(n=134) 20.2%	(n=1,487) 19.9%	(n=560) 21.4%	0.746
Malignant Systemic Neoplasm	Yes	(n=134) 2.2%	(n=1,487) 4.3%	(n=560) 5.5%	0.209
Benign Systemic Neoplasm	Yes	(n=134) 19.4%	(n=1,487) 15.1%	(n=560) 16.1%	0.405
Systemic Neoplasm of Uncertain Behavior or Unspecified Nature	Yes	(n=134) 0.0%	(n=1,487) 1.8%	(n=560) 1.6%	0.304
Malignant Systemic Neoplasm of Eye, Ear, Face, Head, or Neck	Yes	(n=134) 1.5%	(n=1,487) 0.8%	(n=560) 1.1%	0.659
Malignant Systemic Neoplasm of Oral Cavity, Pharynx, or Larynx	Yes	(n=134) 0.8%	(n=1,487) 0.3%	(n=560) 0.7%	0.465

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Age			Race		
		Born ≥ 1942	Born < 1942	p-Value	Black	Non-Black	p-Value
Malignant Systemic Neoplasm of Esophagus	Yes	(n=954) 0.0%	(n=1,269) 0.1%	0.999	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Malignant Systemic Neoplasm of Brain	Yes	(n=954) 0.0%	(n=1,269) 0.2%	0.609	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=954) 0.2%	(n=1,269) 0.0%	0.359	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=954) 0.0%	(n=1,269) 0.3%	0.219	(n=130) 0.0%	(n=2,093) 0.2%	0.999
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=954) 0.1%	(n=1,269) 0.7%	0.074	(n=130) 0.0%	(n=2,093) 0.5%	0.909
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=954) 0.3%	(n=1,269) 0.5%	0.807	(n=130) 0.0%	(n=2,093) 0.4%	0.970
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=954) 0.2%	(n=1,269) 0.7%	0.175	(n=130) 0.8%	(n=2,093) 0.5%	0.999
Malignant Systemic Neoplasm of Prostate	Yes	(n=954) 0.1%	(n=1,269) 3.0%	<0.001	(n=130) 2.3%	(n=2,093) 1.7%	0.880
Malignant Systemic Neoplasm of Testicles	Yes	(n=954) 0.0%	(n=1,269) 0.2%	0.358	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=954) 0.0%	(n=1,269) 0.3%	0.219	(n=130) 0.0%	(n=2,093) 0.2%	0.999
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=954) 0.1%	(n=1,269) 0.1%	0.999	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=954) 0.1%	(n=1,269) 0.1%	0.999	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Hodgkin's Disease	Yes	(n=954) 0.0%	(n=1,269) 0.2%	0.609	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Leukemia	Yes	(n=954) 0.1%	(n=1,269) 0.1%	0.999	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Non-Hodgkin's Lymphoma	Yes	(n=954) 0.1%	(n=1,269) 0.3%	0.559	(n=130) 0.0%	(n=2,093) 0.2%	0.999
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=954) 0.0%	(n=1,269) 0.2%	0.609	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Multiple Myeloma	Yes	(n=954) 0.1%	(n=1,269) 0.0%	0.886	(n=130) 0.0%	(n=2,093) 0.1%	0.999
Any Skin or Systemic Neoplasm	Yes	(n=949) 35.0%	(n=1,255) 48.8%	<0.001	(n=129) 34.9%	(n=2,075) 43.4%	0.072
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	(n=2,163) r=0.299		<0.001	(n=128) x̄=1.094	(n=2,034) x̄=1.015	0.336
(discrete)	BSL	(n=953) 2.1%	(n=1,269) 3.2%	0.166	(n=130) 1.5%	(n=2,092) 2.8%	0.573
(discrete)	Abnormal	1.1%	6.8%	<0.001	9.2%	4.0%	0.009

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.  
BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Occupation			p-Value
		Officer	Enlisted Flyer	Enlisted Groundcrew	
Malignant Systemic Neoplasm of Esophagus	Yes	(n=863) 0.0%	(n=363) 0.3%	(n=997) 0.0%	0.077
Malignant Systemic Neoplasm of Brain	Yes	(n=863) 0.1%	(n=363) 0.3%	(n=997) 0.0%	0.309
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=863) 0.1%	(n=363) 0.0%	(n=997) 0.1%	0.817
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=863) 0.4%	(n=363) 0.0%	(n=997) 0.1%	0.308
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=863) 0.6%	(n=363) 0.8%	(n=997) 0.2%	0.240
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=863) 0.7%	(n=363) 0.6%	(n=997) 0.1%	0.117
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=863) 0.9%	(n=363) 0.3%	(n=997) 0.2%	0.068
Malignant Systemic Neoplasm of Prostate	Yes	(n=863) 2.9%	(n=363) 2.7%	(n=997) 0.6%	0.001
Malignant Systemic Neoplasm of Testicles	Yes	(n=863) 0.1%	(n=363) 0.3%	(n=997) 0.1%	0.725
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=863) 0.2%	(n=363) 0.3%	(n=997) 0.1%	0.717
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=863) 0.1%	(n=363) 0.0%	(n=997) 0.1%	0.817
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=863) 0.1%	(n=363) 0.0%	(n=997) 0.1%	0.817
Hodgkin's Disease	Yes	(n=863) 0.2%	(n=363) 0.0%	(n=997) 0.0%	0.207
Leukemia	Yes	(n=863) 0.0%	(n=363) 0.3%	(n=997) 0.1%	0.336
Non-Hodgkin's Lymphoma	Yes	(n=863) 0.4%	(n=363) 0.3%	(n=997) 0.1%	0.519
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=863) 0.1%	(n=363) 0.0%	(n=997) 0.1%	0.817
Multiple Myeloma	Yes	(n=863) 0.0%	(n=363) 0.0%	(n=997) 0.1%	0.541
Any Skin or Systemic Neoplasm	Yes	(n=854) 47.1%	(n=360) 45.3%	(n=990) 38.4%	0.001
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	(n=834) $\bar{x}$ = 1.123	(n=355) $\bar{x}$ = 1.121	(n=973) $\bar{x}$ = 0.901	<0.001
(discrete)	BSL	(n=863) 3.4%	(n=362) 1.9%	(n=997) 2.4%	0.277
(discrete)	Abnormal	(n=863) 5.5%	(n=362) 6.1%	(n=997) 2.1%	0.003

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Color <sup>a</sup>			Hair Color		
		Non-Peach	Peach	p-Value	Black or Dark Brown	Other <sup>b</sup>	p-Value
Malignant Systemic Neoplasm of Esophagus		--	--	--	--	--	--
Malignant Systemic Neoplasm of Brain		--	--	--	--	--	--
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		--	--	--	--	--	--
Malignant Systemic Neoplasm of Thyroid Gland		--	--	--	--	--	--
Malignant Systemic Neoplasm of Bronchus or Lung		--	--	--	--	--	--
Malignant Systemic Neoplasm of Colon or Rectum		--	--	--	--	--	--
Malignant Systemic Neoplasm of Kidney or Bladder		--	--	--	--	--	--
Malignant Systemic Neoplasm of Prostate		--	--	--	--	--	--
Malignant Systemic Neoplasm of Testicles		--	--	--	--	--	--
Malignant Systemic Neoplasm of Ill-Defined Sites		--	--	--	--	--	--
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		--	--	--	--	--	--
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		--	--	--	--	--	--
Hodgkin's Disease		--	--	--	--	--	--
Leukemia		--	--	--	--	--	--
Non-Hodgkin's Lymphoma		--	--	--	--	--	--
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		--	--	--	--	--	--
Multiple Myeloma		--	--	--	--	--	--
Any Skin or Systemic Neoplasm	Yes	(n=551) 37.0%	(n=1,647) 44.7%	0.002	(n=1,545) 41.6%	(n=654) 45.7%	0.079
Prostate-Specific Antigen (continuous - ng/ml)		--	--	--	--	--	--
(discrete)		--	--	--	--	--	--
(discrete)		--	--	--	--	--	--

<sup>a</sup> Non-Peach = Dark, medium, or pale skin.

Peach = Dark peach or pale peach skin.

<sup>b</sup> Other = Bald, light brown, blonde, or red hair.

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Eye Color			p-Value
		Brown	Hazel or Green	Gray or Blue	
Malignant Systemic Neoplasm of Esophagus		--	--	--	--
Malignant Systemic Neoplasm of Brain		--	--	--	--
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		--	--	--	--
Malignant Systemic Neoplasm of Thyroid Gland		--	--	--	--
Malignant Systemic Neoplasm of Bronchus or Lung		--	--	--	--
Malignant Systemic Neoplasm of Colon or Rectum		--	--	--	--
Malignant Systemic Neoplasm of Kidney or Bladder		--	--	--	--
Malignant Systemic Neoplasm of Prostate		--	--	--	--
Malignant Systemic Neoplasm of Testicles		--	--	--	--
Malignant Systemic Neoplasm of Ill-Defined Sites		--	--	--	--
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		--	--	--	--
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		--	--	--	--
Hodgkin's Disease		--	--	--	--
Leukemia		--	--	--	--
Non-Hodgkin's Lymphoma		--	--	--	--
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		--	--	--	--
Multiple Myeloma		--	--	--	--
Any Skin or Systemic Neoplasm	Yes	(n=740) 38.0%	(n=564) 46.1%	(n=892) 44.6%	0.005
Prostate-Specific Antigen (continuous - ng/ml)		--	--	--	--
(discrete)		--	--	--	--
(discrete)		--	--	--	--

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Reaction to Sun after at Least 2 Hours Exposure				p-Value
		No Reaction	Becomes Red	Burns	Painfully Burns	
Malignant Systemic Neoplasm of Esophagus		--	--	--	--	--
Malignant Systemic Neoplasm of Brain		--	--	--	--	--
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		--	--	--	--	--
Malignant Systemic Neoplasm of Thyroid Gland		--	--	--	--	--
Malignant Systemic Neoplasm of Bronchus or Lung		--	--	--	--	--
Malignant Systemic Neoplasm of Colon or Rectum		--	--	--	--	--
Malignant Systemic Neoplasm of Kidney or Bladder		--	--	--	--	--
Malignant Systemic Neoplasm of Prostate		--	--	--	--	--
Malignant Systemic Neoplasm of Testicles		--	--	--	--	--
Malignant Systemic Neoplasm of Ill-Defined Sites		--	--	--	--	--
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		--	--	--	--	--
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		--	--	--	--	--
Hodgkin's Disease		--	--	--	--	--
Leukemia		--	--	--	--	--
Non-Hodgkin's Lymphoma		--	--	--	--	--
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		--	--	--	--	--
Multiple Myeloma		--	--	--	--	--
Any Skin or Systemic Neoplasm	Yes	(n=902) 39.9%	(n=842) 44.5%	(n=308) 43.2%	(n=147) 50.0%	0.073
Prostate-Specific Antigen (continuous - ng/ml)		--	--	--	--	--
(discrete)		--	--	--	--	--
(discrete)		--	--	--	--	--

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Skin Reaction to Sun after Repeated Exposures				p-Value
		Deeply Tanned	Moderately Tanned	Mildly Tanned	Freckled-No Tan	
Malignant Systemic Neoplasm of Esophagus		--	--	--	--	--
Malignant Systemic Neoplasm of Brain		--	--	--	--	--
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		--	--	--	--	--
Malignant Systemic Neoplasm of Thyroid Gland		--	--	--	--	--
Malignant Systemic Neoplasm of Bronchus or Lung		--	--	--	--	--
Malignant Systemic Neoplasm of Colon or Rectum		--	--	--	--	--
Malignant Systemic Neoplasm of Kidney or Bladder		--	--	--	--	--
Malignant Systemic Neoplasm of Prostate		--	--	--	--	--
Malignant Systemic Neoplasm of Testicles		--	--	--	--	--
Malignant Systemic Neoplasm of Ill-Defined Sites		--	--	--	--	--
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		--	--	--	--	--
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		--	--	--	--	--
Hodgkin's Disease		--	--	--	--	--
Leukemia		--	--	--	--	--
Non-Hodgkin's Lymphoma		--	--	--	--	--
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		--	--	--	--	--
Multiple Myeloma		--	--	--	--	--
Any Skin or Systemic Neoplasm	Yes	(n=667) 38.8%	(n=1,109) 43.6%	(n=365) 46.3%	(n=46) 45.7%	0.089
Prostate-Specific Antigen (continuous - ng/ml)		--	--	--	--	--
(discrete)		--	--	--	--	--
(discrete)		--	--	--	--	--

--: Covariate not applicable for dependent variable.



**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Composite Sun Reaction Index <sup>c</sup>			p-Value
		Low	Medium	High	
Malignant Systemic Neoplasm of Esophagus		--	--	--	--
Malignant Systemic Neoplasm of Brain		--	--	--	--
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		--	--	--	--
Malignant Systemic Neoplasm of Thyroid Gland		--	--	--	--
Malignant Systemic Neoplasm of Bronchus or Lung		--	--	--	--
Malignant Systemic Neoplasm of Colon or Rectum		--	--	--	--
Malignant Systemic Neoplasm of Kidney or Bladder		--	--	--	--
Malignant Systemic Neoplasm of Prostate		--	--	--	--
Malignant Systemic Neoplasm of Testicles		--	--	--	--
Malignant Systemic Neoplasm of Ill-Defined Sites		--	--	--	--
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		--	--	--	--
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		--	--	--	--
Hodgkin's Disease		--	--	--	--
Leukemia		--	--	--	--
Non-Hodgkin's Lymphoma		--	--	--	--
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		--	--	--	--
Multiple Myeloma		--	--	--	--
Any Skin or Systemic Neoplasm	Yes	(n=1,554) 42.1%	(n=475) 43.2%	(n=171) 48.5%	0.266
Prostate-Specific Antigen (continuous - ng/ml)		--	--	--	--
(discrete)		--	--	--	--
(discrete)		--	--	--	--

<sup>c</sup> Low = Painfully burns after at least 2 hours exposure or freckles with no tan after repeated exposures.  
Medium = Burns after at least 2 hours exposure or mildly tans after repeated exposures.  
High = All other reactions.

--: Covariate not applicable for dependent variable.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Average Lifetime Residential Latitude			Asbestos Exposure		
		<37°	≥37°	p-Value	No	Yes	p-Value
Malignant Systemic Neoplasm of Esophagus	Yes	--	--	--	(n=1,607) 0.0%	(n=616) 0.2%	0.618
Malignant Systemic Neoplasm of Brain	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.0%	0.932
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.2%	0.999
Malignant Systemic Neoplasm of Thyroid Gland	Yes	--	--	--	(n=1,607) 0.3%	(n=616) 0.0%	0.496
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	--	--	--	(n=1,607) 0.4%	(n=616) 0.5%	0.999
Malignant Systemic Neoplasm of Colon or Rectum	Yes	--	--	--	(n=1,607) 0.4%	(n=616) 0.5%	0.996
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	--	--	--	(n=1,607) 0.6%	(n=616) 0.3%	0.711
Malignant Systemic Neoplasm of Prostate	Yes	--	--	--	(n=1,607) 2.0%	(n=616) 1.1%	0.233
Malignant Systemic Neoplasm of Testicles	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.2%	0.999
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	--	--	--	(n=1,607) 0.0%	(n=616) 0.2%	0.999
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.2%	0.999
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.2%	0.999
Hodgkin's Disease	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.0%	0.932
Leukemia	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.0%	0.932
Non-Hodgkin's Lymphoma	Yes	--	--	--	(n=1,607) 0.3%	(n=616) 0.2%	0.999
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	--	--	--	(n=1,607) 0.1%	(n=616) 0.0%	0.932
Multiple Myeloma	Yes	--	--	--	(n=1,607) 0.0%	(n=616) 0.2%	0.999
Any Skin or Systemic Neoplasm	Yes	(n=1,077) 44.5%	(n=1,104) 41.5%	0.172	(n=1,592) 42.9%	(n=612) 42.8%	0.999
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	--	--	--	(n=1,558) x̄=1.021	(n=604) x̄=1.017	0.928
(discrete)	BSL	--	--	--	(n=1,606) 3.0%	(n=616) 2.0%	0.227
(discrete)	Abnormal	--	--	--	4.4%	4.1%	0.795

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm at prostate-specific antigen scale.

--: Covariate not applicable for dependent variable.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Ionizing Radiation Exposure			Industrial Chemical Exposure		
		No	Yes	p-Value	No	Yes	p-Value
Malignant Systemic Neoplasm of Esophagus	Yes	(n=1,677) 0.1%	(n=546) 0.0%	0.999	(n=918) 0.1%	(n=1,305) 0.0%	0.860
Malignant Systemic Neoplasm of Brain	Yes	(n=1,677) 0.1%	(n=546) 0.0%	0.999	(n=918) 0.2%	(n=1,305) 0.0%	0.333
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=1,677) 0.1%	(n=546) 0.2%	0.988	(n=918) 0.0%	(n=1,305) 0.2%	0.640
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=1,677) 0.2%	(n=546) 0.0%	0.575	(n=918) 0.1%	(n=1,305) 0.2%	0.877
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=1,677) 0.4%	(n=546) 0.7%	0.442	(n=918) 0.3%	(n=1,305) 0.5%	0.685
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=1,677) 0.4%	(n=546) 0.4%	0.999	(n=918) 0.5%	(n=1,305) 0.3%	0.595
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=1,677) 0.4%	(n=546) 0.9%	0.207	(n=918) 0.8%	(n=1,305) 0.3%	0.229
Malignant Systemic Neoplasm of Prostate	Yes	(n=1,677) 1.6%	(n=546) 2.4%	0.273	(n=918) 2.2%	(n=1,305) 1.5%	0.265
Malignant Systemic Neoplasm of Testicles	Yes	(n=1,677) 0.2%	(n=546) 0.0%	0.751	(n=918) 0.0%	(n=1,305) 0.2%	0.386
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=1,677) 0.2%	(n=546) 0.0%	0.575	(n=918) 0.3%	(n=1,305) 0.1%	0.389
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=1,677) 0.1%	(n=546) 0.0%	0.999	(n=918) 0.1%	(n=1,305) 0.1%	0.999
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=1,677) 0.1%	(n=546) 0.2%	0.988	(n=918) 0.0%	(n=1,305) 0.2%	0.640
Hodgkin's Disease	Yes	(n=1,677) 0.1%	(n=546) 0.0%	0.999	(n=918) 0.1%	(n=1,305) 0.1%	0.999
Leukemia	Yes	(n=1,677) 0.1%	(n=546) 0.2%	0.988	(n=918) 0.2%	(n=1,305) 0.0%	0.333
Non-Hodgkin's Lymphoma	Yes	(n=1,677) 0.2%	(n=546) 0.4%	0.777	(n=918) 0.4%	(n=1,305) 0.1%	0.192
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=1,677) 0.1%	(n=546) 0.2%	0.988	(n=918) 0.2%	(n=1,305) 0.0%	0.333
Multiple Myeloma	Yes	(n=1,677) 0.1%	(n=546) 0.0%	0.999	(n=918) 0.1%	(n=1,305) 0.0%	0.999
Any Skin or Systemic Neoplasm	Yes	(n=1,665) 42.0%	(n=539) 45.5%	0.173	(n=911) 45.7%	(n=1,293) 40.9%	0.031
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	(n=1,635) $\bar{x}$ =0.995	(n=527) $\bar{x}$ =1.017	0.007	(n=895) $\bar{x}$ =1.054	(n=1,267) $\bar{x}$ =0.996	0.085
(discrete)	BSL	(n=1,676) 2.5%	(n=546) 3.5%	0.253	(n=917) 2.4%	(n=1,305) 2.9%	0.548
(discrete)	Abnormal	3.7%	6.2%	0.016	5.0%	3.8%	0.213

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Herbicide Exposure			Insecticide Exposure		
		No	Yes	p-Value	No	Yes	p-Value
Malignant Systemic Neoplasm of Esophagus	Yes	(n=839) 0.1%	(n=1,384) 0.0%	0.800	(n=701) 0.0%	(n=1,522) 0.1%	0.999
Malignant Systemic Neoplasm of Brain	Yes	(n=839) 0.0%	(n=1,384) 0.1%	0.710	(n=701) 0.1%	(n=1,522) 0.1%	0.999
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=839) 0.0%	(n=1,384) 0.1%	0.710	(n=701) 0.0%	(n=1,522) 0.1%	0.842
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=839) 0.2%	(n=1,384) 0.1%	0.999	(n=701) 0.3%	(n=1,522) 0.1%	0.797
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=839) 0.4%	(n=1,384) 0.5%	0.858	(n=701) 0.6%	(n=1,522) 0.4%	0.813
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=839) 0.5%	(n=1,384) 0.4%	0.943	(n=701) 0.6%	(n=1,522) 0.3%	0.634
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=839) 0.5%	(n=1,384) 0.5%	0.999	(n=701) 1.0%	(n=1,522) 0.3%	0.049
Malignant Systemic Neoplasm of Prostate	Yes	(n=839) 1.3%	(n=1,384) 2.0%	0.283	(n=701) 1.6%	(n=1,522) 1.8%	0.781
Malignant Systemic Neoplasm of Testicles	Yes	(n=839) 0.0%	(n=1,384) 0.2%	0.451	(n=701) 0.0%	(n=1,522) 0.2%	0.579
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=839) 0.4%	(n=1,384) 0.1%	0.307	(n=701) 0.3%	(n=1,522) 0.1%	0.797
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=839) 0.2%	(n=1,384) 0.0%	0.277	(n=701) 0.1%	(n=1,522) 0.1%	0.999
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=839) 0.1%	(n=1,384) 0.1%	0.999	(n=701) 0.1%	(n=1,522) 0.1%	0.999
Hodgkin's Disease	Yes	(n=839) 0.1%	(n=1,384) 0.1%	0.999	(n=701) 0.1%	(n=1,522) 0.1%	0.999
Leukemia	Yes	(n=839) 0.1%	(n=1,384) 0.1%	0.999	(n=701) 0.0%	(n=1,522) 0.1%	0.842
Non-Hodgkin's Lymphoma	Yes	(n=839) 0.2%	(n=1,384) 0.2%	0.999	(n=701) 0.1%	(n=1,522) 0.3%	0.941
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=839) 0.1%	(n=1,384) 0.1%	0.999	(n=701) 0.1%	(n=1,522) 0.1%	0.999
Multiple Myeloma	Yes	(n=839) 0.0%	(n=1,384) 0.1%	0.999	(n=701) 0.0%	(n=1,522) 0.1%	0.999
Any Skin or Systemic Neoplasm	Yes	(n=837) 39.6%	(n=1,367) 44.9%	0.015	(n=698) 41.6%	(n=1,506) 43.5%	0.417
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	(n=819) $\bar{x}$ =1.043	(n=1,343) $\bar{x}$ =1.006	0.286	(n=683) $\bar{x}$ =1.013	(n=1,479) $\bar{x}$ =1.023	0.722
(discrete)	BSL	(n=839) 2.4%	(n=1,386) 2.9%	0.561	(n=701) 2.6%	(n=1,521) 2.8%	0.904
(discrete)	Abnormal	4.3%	4.3%	0.957	5.4%	3.8%	0.083

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Degreasing Chemical Exposure		
		No	Yes	p-Value
Malignant Systemic Neoplasm of Esophagus		(n=822)	(n=1,401)	
	Yes	0.0%	0.1%	0.999
Malignant Systemic Neoplasm of Brain		(n=822)	(n=1,401)	
	Yes	0.2%	0.0%	0.265
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum		(n=822)	(n=1,401)	
	Yes	0.0%	0.1%	0.726
Malignant Systemic Neoplasm of Thyroid Gland		(n=822)	(n=1,401)	
	Yes	0.4%	0.1%	0.290
Malignant Systemic Neoplasm of Bronchus or Lung		(n=822)	(n=1,401)	
	Yes	0.2%	0.6%	0.432
Malignant Systemic Neoplasm of Colon or Rectum		(n=822)	(n=1,401)	
	Yes	0.5%	0.4%	0.905
Malignant Systemic Neoplasm of Kidney or Bladder		(n=822)	(n=1,401)	
	Yes	0.7%	0.4%	0.370
Malignant Systemic Neoplasm of Prostate		(n=822)	(n=1,401)	
	Yes	2.2%	1.5%	0.303
Malignant Systemic Neoplasm of Testicles		(n=822)	(n=1,401)	
	Yes	0.1%	0.1%	0.999
Malignant Systemic Neoplasm of Ill-Defined Sites		(n=822)	(n=1,401)	
	Yes	0.2%	0.1%	0.983
Malignant Systemic Neoplasm of Connective and Other Soft Tissues		(n=822)	(n=1,401)	
	Yes	0.1%	0.1%	0.999
Carcinoma in Situ of the Penis, Other, and Unspecified Sites		(n=822)	(n=1,401)	
	Yes	0.1%	0.1%	0.999
Hodgkin's Disease		(n=822)	(n=1,401)	
	Yes	0.1%	0.1%	0.999
Leukemia		(n=822)	(n=1,401)	
	Yes	0.0%	0.1%	0.726
Non-Hodgkin's Lymphoma		(n=822)	(n=1,401)	
	Yes	0.4%	0.1%	0.546
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue		(n=822)	(n=1,401)	
	Yes	0.1%	0.1%	0.999
Multiple Myeloma		(n=822)	(n=1,401)	
	Yes	0.0%	0.1%	0.999
Any Skin or Systemic Neoplasm		(n=817)	(n=1,387)	
	Yes	43.3%	42.3%	0.521
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL	(n=800) $\bar{x}$ =1.045	(n=1,362) $\bar{x}$ =1.005	0.254
(discrete)	BSL	(n=822) 2.6%	(n=1,400) 2.8%	0.904
(discrete)	Abnormal	4.7%	4.1%	0.451

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Lifetime Cigarette Smoking History (Pack-years)			p-Value
		0	>0-10	>10	
Malignant Systemic Neoplasm of Esophagus	Yes	(n=608) 0.0%	(n=680) 0.0%	(n=932) 0.1%	0.501
Malignant Systemic Neoplasm of Brain	Yes	(n=608) 0.0%	(n=680) 0.2%	(n=932) 0.1%	0.662
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=608) 0.0%	(n=680) 0.0%	(n=932) 0.2%	0.251
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=608) 0.3%	(n=680) 0.2%	(n=932) 0.1%	0.587
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=608) 0.0%	(n=680) 0.2%	(n=932) 1.0%	0.008
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=608) 0.3%	(n=680) 0.3%	(n=932) 0.5%	0.707
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=608) 0.2%	(n=680) 0.2%	(n=932) 1.0%	0.027
Malignant Systemic Neoplasm of Prostate	Yes	(n=608) 2.0%	(n=680) 1.3%	(n=932) 1.9%	0.586
Malignant Systemic Neoplasm of Testicles	Yes	(n=608) 0.0%	(n=680) 0.0%	(n=932) 0.3%	0.125
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=608) 0.3%	(n=680) 0.0%	(n=932) 0.2%	0.361
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=608) 0.0%	(n=680) 0.0%	(n=932) 0.2%	0.251
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=608) 0.2%	(n=680) 0.2%	(n=932) 0.0%	0.482
Hodgkin's Disease	Yes	(n=608) 0.3%	(n=680) 0.0%	(n=932) 0.0%	0.070
Leukemia	Yes	(n=608) 0.2%	(n=680) 0.2%	(n=932) 0.0%	0.482
Non-Hodgkin's Lymphoma	Yes	(n=608) 0.3%	(n=680) 0.0%	(n=932) 0.3%	0.331
Other Malignant Sytemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=608) 0.2%	(n=680) 0.0%	(n=932) 0.1%	0.601
Multiple Myeloma	Yes	(n=608) 0.0%	(n=680) 0.2%	(n=932) 0.0%	0.322
Any Skin or Systemic Neoplasm	Yes	(n=603) 41.6%	(n=673) 41.8%	(n=925) 44.5%	0.411
Prostate-Specific Antigen (continuous - ng/ml)	ASL		(n=2,160) r=-0.008		0.708
(discrete)	BSL	(n=607) 2.3%	(n=680) 2.5%	(n=932) 3.1%	0.588
(discrete)	Abnormal	4.5%	4.9%	3.8%	0.545

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.

BSL - Below sensitivity limit.

**Table F-1-1. (Continued)**  
**Dependent Variable-Covariate Associations for the Neoplasia Assessment**

Dependent Variable	Level	Lifetime Alcohol History (Drink-years)			p-Value
		0	>0-40	> 40	
Malignant Systemic Neoplasm of Esophagus	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.0%	0.792
Malignant Systemic Neoplasm of Brain	Yes	(n=134) 0.8%	(n=1,487) 0.0%	(n=560) 0.2%	0.017
Malignant Systemic Neoplasm of Thymus, Heart, or Mediastinum	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.0%	0.627
Malignant Systemic Neoplasm of Thyroid Gland	Yes	(n=134) 0.0%	(n=1,487) 0.2%	(n=560) 0.2%	0.872
Malignant Systemic Neoplasm of Bronchus or Lung	Yes	(n=134) 0.0%	(n=1,487) 0.5%	(n=560) 0.4%	0.622
Malignant Systemic Neoplasm of Colon or Rectum	Yes	(n=134) 0.0%	(n=1,487) 0.4%	(n=560) 0.5%	0.682
Malignant Systemic Neoplasm of Kidney or Bladder	Yes	(n=134) 0.0%	(n=1,487) 0.3%	(n=560) 1.3%	0.014
Malignant Systemic Neoplasm of Prostate	Yes	(n=134) 0.0%	(n=1,487) 1.6%	(n=560) 2.1%	0.198
Malignant Systemic Neoplasm of Testicles	Yes	(n=134) 0.0%	(n=1,487) 0.2%	(n=560) 0.0%	0.496
Malignant Systemic Neoplasm of Ill-Defined Sites	Yes	(n=134) 0.0%	(n=1,487) 0.3%	(n=560) 0.0%	0.393
Malignant Systemic Neoplasm of Connective and Other Soft Tissues	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.0%	0.627
Carcinoma in Situ of the Penis, Other, and Unspecified Sites	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.0%	0.627
Hodgkin's Disease	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.2%	0.711
Leukemia	Yes	(n=134) 0.8%	(n=1,487) 0.1%	(n=560) 0.0%	0.032
Non-Hodgkin's Lymphoma	Yes	(n=134) 0.0%	(n=1,487) 0.2%	(n=560) 0.4%	0.685
Other Malignant Systemic Neoplasms of Lymphoid and Histiocytic Tissue	Yes	(n=134) 0.0%	(n=1,487) 0.0%	(n=560) 0.4%	0.055
Multiple Myeloma	Yes	(n=134) 0.0%	(n=1,487) 0.1%	(n=560) 0.0%	0.792
Any Skin or Systemic Neoplasm	Yes	(n=132) 37.1%	(n=1,474) 41.6%	(n=566) 46.8%	0.046
Prostate-Specific Antigen (continuous - ng/ml) <sup>d</sup>	ASL		(n=2,124) r=-0.033		0.124
	(discrete) BSL	(n=134) 1.5%	(n=1,486) 2.8%	(n=560) 2.5%	0.666
	(discrete) Abnormal	4.5%	4.7%	3.0%	0.245

<sup>d</sup> Analysis based on natural logarithm of prostate-specific antigen for measurements at or above sensitivity level; means transformed from natural logarithm of prostate-specific antigen scale.

Note: ASL - At or above sensitivity limit.  
BSL - Below sensitivity limit.

**Table F-1-2.**  
**Analysis of Melanoma**  
**Miscoded Non-Black Participant Recoded**  
**Re-Analysis of Table 10-14**

<b>a) MODEL 1: RANCH HANDS VS. COMPARISONS — UNADJUSTED</b>					
<b>Occupational Category</b>	<b>Group</b>	<b>n</b>	<b>Percent Yes</b>	<b>Est. Relative Risk (95% C.I.)</b>	<b>p-Value</b>
<i>All</i>	<i>Ranch Hand</i>	886	1.2	1.36 (0.59,3.15)	0.618
	<i>Comparison</i>	1,199	0.9		
Officer	Ranch Hand	357	1.7	1.66 (0.50,5.48)	0.596
	Comparison	490	1.0		
Enlisted Flyer	Ranch Hand	150	0.0	--	--
	Comparison	188	0.5		
Enlisted Groundcrew	Ranch Hand	379	1.3	1.38 (0.40,4.80)	0.852
	Comparison	521	1.0		

<b>b) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED</b>			
<b>Occupational Category</b>	<b>Adj. Relative Risk (95% C.I.)</b>	<b>p-Value</b>	<b>Covariate Remarks<sup>a</sup></b>
<i>All</i>	1.24 (0.53,2.90)	0.613	LAT (p=0.040)
Officer	1.57 (0.47,5.23)	0.460	IC (p=0.011)
Enlisted Flyer	--	--	DC (p=0.052)
Enlisted Groundcrew	1.23 (0.35,4.32)	0.747	

<sup>a</sup> Covariates and associated p-values correspond to final model based on all participants with available data.

--: Relative risk, confidence interval, and p-value not presented due to the sparse number of abnormalities.



**Table F-1-2. (Continued)**  
**Analysis of Melanoma**  
**Miscoded Non-Black Participant Recoded**  
**Re-Analysis of Table 10-14**

c) MODEL 2: RANCH HANDS — INITIAL DIOXIN — UNADJUSTED				
Initial Dioxin Category Summary Statistics			Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>a</sup>	
Initial Dioxin	n	Percent Yes	Estimated Relative Risk (95% C.I.) <sup>b</sup>	p-Value
Low	152	2.0	0.61 (0.30,1.24)	0.136
Medium	161	1.2		
High	164	1.2		

d) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED				
Analysis Results for Log <sub>2</sub> (Initial Dioxin) <sup>c</sup>				
n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks	
477	0.43 (0.18,0.99)	0.021	SKIN (p=0.047) HAIR (p=0.003) IC (p=0.013) DC (p=0.008)	

<sup>a</sup> Adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>b</sup> Relative risk for a twofold increase in initial dioxin.

<sup>c</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

**Table F-1-2. (Continued)**  
**Analysis of Melanoma**  
**Miscoded Non-Black Participant Recoded**  
**Re-Analysis of Table 10-14**

<b>e) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — UNADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Percent Yes</b>	<b>Est. Relative Risk (95% C.I.)<sup>ab</sup></b>	<b>p-Value</b>
Comparison	1,003	0.9		
Background RH	356	0.8	0.94 (0.25,3.51)	0.921
Low RH	232	2.2	2.46 (0.81,7.45)	0.111
High RH	245	0.8	0.90 (0.19,4.23)	0.895
Low plus High RH	477	1.5	1.65 (0.61,4.49)	0.326

<b>f) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b>				
<b>Dioxin Category</b>	<b>n</b>	<b>Adj. Relative Risk (95% C.I.)<sup>ac</sup></b>	<b>p-Value</b>	<b>Covariate Remarks</b>
Comparison	991			LAT (p=0.033) IC (p=0.048) DC (p=0.053)
Background RH	355	0.97 (0.25,3.76)	0.964	
Low RH	230	2.34 (0.74,7.40)	0.148	
High RH	245	0.93 (0.19,4.53)	0.930	
Low plus High RH	475	1.64 (0.58,4.63)	0.351	

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Adjusted for percent body fat at the time of duty in SEA and change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin.

<sup>c</sup> Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.

Comparison: Current Dioxin  $\leq 10$  ppt.

Background (Ranch Hand): Current Dioxin  $\leq 10$  ppt.

Low (Ranch Hand): Current Dioxin  $> 10$  ppt,  $10 \text{ ppt} < \text{Initial Dioxin} \leq 143$  ppt.

High (Ranch Hand): Current Dioxin  $> 10$  ppt, Initial Dioxin  $> 143$  ppt.

**Table F-1-2. (Continued)**  
**Analysis of Melanoma**  
**Miscoded Non-Black Participant Recoded**  
**Re-Analysis of Table 10-14**

g) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — UNADJUSTED					
Model <sup>a</sup>	Current Dioxin Category Percent Yes/(n)			Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
	Low	Medium	High	Est. Relative Risk (95% C.I.) <sup>b</sup>	p-Value
4	0.7 (281)	2.2 (272)	0.7 (280)	0.98 (0.64,1.50)	0.934
5	1.1 (285)	1.1 (268)	1.4 (280)	0.99 (0.69,1.42)	0.944
6 <sup>c</sup>	1.1 (284)	1.1 (268)	1.4 (280)	1.02 (0.69,1.51)	0.938

h) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
Model <sup>a</sup>	Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)			
	n	Adj. Relative Risk (95% C.I.) <sup>b</sup>	p-Value	Covariate Remarks
4	830	1.01 (0.64,1.57)	0.982	HAIR (p=0.086) LAT (p=0.019) IC (p=0.130) DC (p=0.044)
5	830	1.01 (0.69,1.48)	0.950	HAIR (p=0.087) LAT (p=0.019) IC (p=0.130) DC (p=0.043)
6 <sup>d</sup>	829	1.03 (0.69,1.54)	0.869	HAIR (p=0.088) LAT (p=0.020) IC (p=0.135) DC (p=0.044)

<sup>a</sup> Model 4: Log<sub>2</sub> (lipid-adjusted current dioxin + 1).  
Model 5: Log<sub>2</sub> (whole-weight current dioxin + 1).  
Model 6: Log<sub>2</sub> (whole-weight current dioxin + 1), adjusted for log<sub>2</sub> total lipids.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

<sup>c</sup> Adjusted for log<sub>2</sub> total lipids.

<sup>d</sup> Adjusted for log<sub>2</sub> total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.  
Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

## **APPENDIX F-2.**

### **Interaction Tables for the Neoplasia Assessment**

This appendix contains exposure analyses results of interactions between covariates and group or dioxin. Results are presented for separate strata of the covariate and include sample sizes, percent abnormal, relative risks, confidence intervals, and p-values for discrete dependent variables. Sample sizes, adjusted means, differences of adjusted means and confidence intervals or adjusted slopes and standard errors, and p-values are given for continuous dependent variables. Means are transformed back to the original scale, if necessary. Chapter 7, Statistical Methods, provides further details on the analytical approaches used in the interaction analyses. The covariate involved in the interaction and a reference to the analysis table in Chapter 10, Neoplasia Assessment, are given in the heading of each subtable. A summary of the interactions described in this appendix follows.

Appendix F-2 Table	Chapter 10 Table	Dependent Variable	Model	Covariate
F-2-1	10-3	Any Skin Neoplasms	5	Skin Color, Industrial Chemical Exposure
			6	Skin Color, Industrial Chemical Exposure
F-2-2	10-4	Malignant Skin Neoplasms	2 3	Insecticide Exposure Industrial Chemical Exposure, Insecticide Exposure
F-2-3	10-5	Benign Skin Neoplasms	5 6	Skin Color Skin Color
F-2-4	10-7	Basal Cell Carcinoma (All Sites Combined)	6	Asbestos Exposure
F-2-5	10-9	Basal Cell Carcinoma (Trunk)	3 4 5 6	Insecticide Exposure Insecticide Exposure Insecticide Exposure Insecticide Exposure
F-2-6	10-13	Nonmelanoma	2	Insecticide Exposure
F-2-7	10-16	Malignant Systemic Neoplasms	2 4 5 6	Lifetime Cigarette Smoking History Degreasing Chemical Exposure Lifetime Cigarette Smoking History, Degreasing Chemical Exposure Lifetime Cigarette Smoking History, Degreasing Chemical Exposure
F-2-8	10-18	Systemic Neoplasms of Uncertain Behavior or Unspecified Nature	4 5 6	Asbestos Exposure Asbestos Exposure Asbestos Exposure
F-2-9	10-19	Malignant Systemic Neoplasms (Eye, Ear, Face, Head, and Neck)	2 3	Lifetime Cigarette Smoking History Lifetime Cigarette Smoking History, Degreasing Chemical Exposure
F-2-10	10-28	Malignant Systemic Neoplasms (Prostate)	3 4 5 6	Degreasing Chemical Exposure Degreasing Chemical Exposure Degreasing Chemical Exposure Degreasing Chemical Exposure
F-2-11	10-38	Any Skin or Systemic Neoplasms	4 5 6	Eye Color Eye Color Eye Color
F-2-12	10-40	Prostate-Specific Antigen (Continuous)	1 2 3	Insecticide Exposure Age Insecticide Exposure
F-2-13	10-41	Prostate-Specific Antigen (Discrete)	1 3 4 5 6	Lifetime Cigarette Smoking History Insecticide Exposure Degreasing Chemical Exposure Degreasing Chemical Exposure Degreasing Chemical Exposure

**Table F-2-1.**  
**Interaction Table for Any Skin Neoplasms**

<b>a) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Skin Color: Table 10-3)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Non-Peach</b>	Low	60	36.7	0.74 (0.57,0.94)	0.016
	Medium	56	23.2		
	High	55	16.4		
<b>Peach</b>	Low	225	32.0	0.98 (0.89,1.08)	0.685
	Medium	211	36.0		
	High	224	30.4		

<b>b) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Industrial Chemical Exposure: Table 10-3)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	Low	145	36.6	0.83 (0.71,0.97)	0.018
	Medium	122	31.2		
	High	89	20.2		
<b>Yes</b>	Low	140	29.3	1.01 (0.90,1.12)	0.928
	Medium	145	35.2		
	High	190	31.1		

**Table F-2-1. (Continued)**  
**Interaction Table for Any Skin Neoplasms**

<b>c) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Skin Color: Table 10-3)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Non-Peach</b>	Low	60	36.7	0.69 (0.53,0.89)	0.004
	Medium	56	23.2		
	High	55	16.4		
<b>Peach</b>	Low	224	32.1	0.91 (0.82,1.01)	0.091
	Medium	211	36.0		
	High	224	30.4		

<b>d) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Industrial Chemical Exposure: Table 10-3)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	Low	145	36.6	0.78 (0.66,0.91)	0.002
	Medium	122	31.2		
	High	89	20.2		
<b>Yes</b>	Low	139	29.5	0.93 (0.83,1.05)	0.261
	Medium	145	35.2		
	High	190	31.1		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table F-2-2.**  
**Interaction Table for Malignant Skin Neoplasms**

<b>a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED</b> <b>(Initial Dioxin-by-Insecticide Exposure: Table 10-4)</b>					
<b>Initial Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Initial Dioxin)</b>	
<b>Stratum</b>	<b>Initial Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	Low	30	10.0	1.27 (0.84,1.93)	0.262
	Medium	34	8.8		
	High	41	17.1		
<b>Yes</b>	Low	120	18.3	0.64 (0.47,0.87)	0.004
	Medium	125	14.4		
	High	122	5.7		

<b>b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> <b>(Dioxin Category-by-Industrial Chemical Exposure: Table 10-4)</b>					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Comparison	407	11.3		
	Background RH	181	18.2	1.64 (0.99,2.72)	0.055
	Low RH	96	19.8	1.98 (1.06,3.69)	0.032
	High RH	75	4.0	0.36 (0.11,1.22)	0.102
	Low plus High RH	171	12.9	1.23 (0.69,2.17)	0.485
<b>Yes</b>	Comparison	577	12.1		
	Background RH	173	10.4	0.81 (0.46,1.44)	0.472
	Low RH	132	15.9	1.15 (0.66,2.00)	0.626
	High RH	169	10.1	0.97 (0.54,1.72)	0.910
	Low plus High RH	301	12.6	1.06 (0.68,1.64)	0.805



**Table F-2-2. (Continued)**  
**Interaction Table for Malignant Skin Neoplasms**

c) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Insecticide Exposure: Table 10-4)					
Stratum	Dioxin Category	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Comparison	369	9.2		
	Background RH	85	14.1	1.50 (0.72,3.12)	0.274
	Low RH	44	9.1	0.80 (0.26,2.46)	0.695
	High RH	61	14.8	2.02 (0.89,4.56)	0.093
	Low plus High RH	105	12.4	1.40 (0.69,2.83)	0.350
Yes	Comparison	615	13.3		
	Background RH	269	14.5	1.09 (0.71,1.68)	0.677
	Low RH	184	19.6	1.57 (0.99,2.47)	0.054
	High RH	183	6.0	0.51 (0.26,0.99)	0.047
	Low plus High RH	367	12.8	1.04 (0.70,1.56)	0.833

<sup>a</sup> Relative risk for a twofold increase in initial dioxin.

<sup>b</sup> Relative risk and confidence interval relative to Comparisons.

Note: Model 2: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤10 ppt.

Background (Ranch Hand): Current Dioxin ≤10 ppt.

Low (Ranch Hand): Current Dioxin >10 ppt, 10 ppt < Initial Dioxin ≤143 ppt.

High (Ranch Hand): Current Dioxin >10 ppt, Initial Dioxin >143 ppt.

**Table F-2-3.**  
**Interaction Table for Benign Skin Neoplasms**

<b>a) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Skin Color: Table 10-5)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>e</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
<b>Non-Peach</b>	Low	71	25.4	0.69 (0.53,0.89)	0.005
	Medium	78	18.0		
	High	69	8.7		
<b>Peach</b>	Low	227	19.4	0.97 (0.86,1.08)	0.555
	Medium	212	21.2		
	High	226	20.4		

<b>b) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Skin Color: Table 10-5)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>e</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
<b>Non-Peach</b>	Low	71	25.4	0.66 (0.51,0.85)	0.002
	Medium	78	18.0		
	High	69	8.7		
<b>Peach</b>	Low	226	19.5	0.92 (0.82,1.04)	0.175
	Medium	212	21.2		
	High	226	20.4		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table F-2-4.**  
**Interaction Table for Basal Cell Carcinoma (All Sites Combined)**

a) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Asbestos Exposure: Table 10-7)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
No	Low	209	11.0	0.99 (0.84,1.17)	0.889
	Medium	195	14.4		
	High	199	9.1		
Yes	Low	73	15.1	0.69 (0.51,0.92)	0.011
	Medium	71	8.5		
	High	78	7.7		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table F-2-5.**  
**Interaction Table for Basal Cell Carcinoma (Trunk)**

<b>a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> (Dioxin Category-by-Insecticide Exposure: Table 10-9)					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	Comparison	369	2.2		
	Background RH	85	0.0	--	--
	Low RH	44	4.6	2.10 (0.18,24.34)	0.553
	High RH	61	6.6	4.10 (0.44,38.34)	0.215
	Low plus High RH	105	5.7	3.07 (0.38,24.55)	0.289
<b>Yes</b>	Comparison	613	3.3		
	Background RH	269	4.1	0.73 (0.32,1.66)	0.452
	Low RH	184	4.9	1.02 (0.42,2.47)	0.974
	High RH	183	1.6	0.38 (0.10,1.42)	0.152
	Low plus High RH	367	3.3	0.73 (0.32,1.64)	0.444

<b>b) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Insecticide Exposure: Table 10-9)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	72	0.0	1.71 (1.06,2.77)	0.028
	Medium	54	5.6		
	High	64	4.7		
<b>Yes</b>	Low	209	4.3	0.91 (0.66,1.26)	0.575
	Medium	215	4.2		
	High	215	2.3		

<b>c) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Insecticide Exposure: Table 10-9)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	71	0.0	1.61 (1.05,2.49)	0.030
	Medium	53	5.7		
	High	67	4.5		
<b>Yes</b>	Low	214	4.7	0.89 (0.68,1.17)	0.416
	Medium	215	4.7		
	High	213	1.4		

**Table F-2-5. (Continued)**  
**Interaction Table for Basal Cell Carcinoma (Trunk)**

<b>d) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Insecticide Exposure: Table 10-9)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	71	0.0	1.68 (1.07,2.63)	0.024
	Medium	53	5.7		
	High	67	4.5		
<b>Yes</b>	Low	213	4.7	0.91 (0.69,1.21)	0.538
	Medium	215	4.7		
	High	213	1.4		

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

--: Adjusted relative risk, confidence interval, and p-value not presented due to zero abnormalities.

Note: Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Model 4: Low = ≤ 8.1 ppt; Medium = > 8.1-20.5 ppt; High = > 20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = > 46-128 ppq; High = > 128 ppq.

**Table F-2-6.**  
**Interaction Table for Nonmelanoma**

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED (Initial Dioxin-by-Insecticide Exposure: Table 10-13)					
Initial Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Initial Dioxin)	
Stratum	Initial Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
No	Low	30	10.0	1.17 (0.76,1.83)	0.475
	Medium	34	8.8		
	High	41	12.2		
Yes	Low	120	17.5	0.65 (0.48,0.88)	0.006
	Medium	125	13.6		
	High	122	5.7		

<sup>a</sup> Relative risk for a twofold increase in initial dioxin.

Note: Model 2: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

**Table F-2-7.**  
**Interaction Table for Malignant Systemic Neoplasms**

<b>a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED</b> (Initial Dioxin-by-Lifetime Cigarette Smoking History: Table 10-16)					
Initial Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Initial Dioxin)	
Stratum	Initial Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
0 Pack-years	Low	45	8.9	0.29 (0.07,1.17)	0.081
	Medium	38	2.6		
	High	53	0.0		
>0-10 Pack-years	Low	50	8.0	0.48 (0.19,1.19)	0.112
	Medium	44	2.3		
	High	66	1.5		
>10 Pack-years	Low	75	5.3	0.96 (0.62,1.50)	0.872
	Medium	90	13.3		
	High	53	3.8		

<b>b) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-16)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Low	152	2.0	1.51 (1.05,2.16)	0.026
	Medium	111	11.7		
	High	64	4.7		
Yes	Low	140	5.7	0.86 (0.63,1.18)	0.362
	Medium	185	6.0		
	High	233	2.6		

<b>c) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Lifetime Cigarette Smoking History: Table 10-16)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
0 Pack-years	Low	88	4.6	0.80 (0.48,1.33)	0.390
	Medium	80	6.3		
	High	77	1.3		
>0-10 Pack-years	Low	94	1.1	1.00 (0.61,1.63)	0.993
	Medium	75	6.7		
	High	100	1.0		
>10 Pack-years	Low	115	7.8	1.22 (0.94,1.59)	0.144
	Medium	137	4.4		
	High	119	10.1		

**Table F-2-7. (Continued)**  
**Interaction Table for Malignant Systemic Neoplasms**

<b>d) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-16)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Low	147	3.4	1.43 (1.04,1.96)	0.030
	Medium	115	7.0		
	High	65	9.2		
Yes	Low	150	6.0	0.94 (0.73,1.20)	0.603
	Medium	177	4.5		
	High	231	3.5		

<b>e) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Lifetime Cigarette Smoking History: Table 10-16)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
0 Pack-years	Low	88	4.6	0.79 (0.47,1.33)	0.373
	Medium	80	6.3		
	High	77	1.3		
>0-10 Pack-years	Low	94	1.1	0.99 (0.60,1.62)	0.963
	Medium	75	6.7		
	High	100	1.0		
>10 Pack-years	Low	114	7.9	1.20 (0.90,1.59)	0.218
	Medium	137	4.4		
	High	119	10.1		

<b>f) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-16)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Low	147	3.4	1.40 (1.00,1.96)	0.047
	Medium	115	7.0		
	High	65	9.2		
Yes	Low	149	6.0	0.91 (0.70,1.20)	0.511
	Medium	177	4.5		
	High	231	3.5		

<sup>a</sup> Relative risk for a twofold increase in initial dioxin.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

--: Adjusted relative risk, confidence interval, and p-value not presented due to zero abnormalities.

Note: Model 2: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.



**Table F-2-8.**  
**Interaction Table for Systemic Neoplasms of Uncertain Behavior or Unspecified Nature**

<b>a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Asbestos Exposure: Table 10-18)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
No	Low	222	2.7	0.67 (0.42,1.09)	0.110
	Medium	209	1.4		
	High	216	0.9		
Yes	Low	71	0.0	2.18 (1.02,4.65)	0.045
	Medium	87	1.2		
	High	81	2.5		

<b>b) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Asbestos Exposure: Table 10-18)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
No	Low	221	2.3	0.75 (0.54,1.05)	0.092
	Medium	212	2.4		
	High	214	0.5		
Yes	Low	77	0.0	1.98 (0.96,4.09)	0.064
	Medium	80	1.3		
	High	82	2.4		

<b>c) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Asbestos Exposure: Table 10-18)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
No	Low	221	2.3	0.72 (0.51,1.01)	0.058
	Medium	212	2.4		
	High	214	0.5		
Yes	Low	76	0.0	1.93 (0.92,4.05)	0.080
	Medium	80	1.3		
	High	82	2.4		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.  
 Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

Table F-2-9.

## Interaction Table for Malignant Systemic Neoplasms (Eye, Ear, Face, Head, and Neck)

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED (Initial Dioxin-by-Lifetime Cigarette Smoking History: Table 10-19)					
Initial Dioxin Category Summary Statistics				Analysis Results for Log <sub>e</sub> (Initial Dioxin)	
Stratum	Initial Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
0 Pack-years	Low	45	2.2	0.12 (0.00,7.11)	0.309
	Medium	38	0.0		
	High	53	0.0		
>0-10 Pack-years	Low	50	4.0	0.12 (0.00,4.09)	0.236
	Medium	44	0.0		
	High	66	0.0		
>10 Pack-years	Low	75	1.3	1.24 (0.58,2.67)	0.576
	Medium	90	0.0		
	High	53	3.8		

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Lifetime Cigarette Smoking History: Table 10-19)					
Stratum	Dioxin Category	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
0 Pack-years	Comparison	281	0.0		
	Background RH	109	0.9	--	--
	Low RH	69	1.5	--	--
	High RH	67	0.0	--	--
	Low plus High RH	136	0.7	--	--
>0-10 Pack-years	Comparison	324	0.0		
	Background RH	109	0.0	--	--
	Low RH	67	3.0	--	0.029*
	High RH	93	0.0	--	--
	Low plus High RH	160	1.3	--	--
>10 Pack-years	Comparison	455	1.3		
	Background RH	153	1.3	0.98 (0.18,5.21)	0.982
	Low RH	119	0.8	0.50 (0.06,4.37)	0.534
	High RH	99	2.0	2.30 (0.23,23.29)	0.481
	Low plus High RH	218	1.4	1.06 (0.24,4.72)	0.936

**Table F-2-9. (Continued)**  
**Interaction Table for Malignant Systemic Neoplasms (Eye, Ear, Face, Head, and Neck)**

c) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Degreasing Chemical Exposure: Table 10-19)					
Stratum	Dioxin Category	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>b</sup>	p-Value
No	Comparison	375	0.3		
	Background RH	181	0.6	2.14 (0.13,35.25)	0.595
	Low RH	94	4.3	15.44 (1.65,144.23)	0.016
	High RH	52	1.9	9.04 (0.53,155.09)	0.129
	Low plus High RH	146	3.4	13.63 (1.55,120.01)	0.019
Yes	Comparison	685	0.7		
	Background RH	190	1.1	1.67 (0.30,9.28)	0.556
	Low RH	161	0.0	--	--
	High RH	207	0.5	0.85 (0.10,7.51)	0.880
	Low plus High RH	368	0.3	0.34 (0.04,3.07)	0.340

<sup>a</sup> Relative risk for a twofold increase in initial dioxin.

<sup>b</sup> Relative risk and confidence interval relative to Comparisons.

--: Adjusted relative risk, confidence interval, and p-value not presented due to the sparse number of abnormalities.

\* P-value given is based on continuity-adjusted chi-square statistic from unadjusted analysis.

Note: Model 2: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤10 ppt.

Background (Ranch Hand): Current Dioxin ≤10 ppt.

Low (Ranch Hand): Current Dioxin >10 ppt, 10 ppt < Initial Dioxin ≤143 ppt.

High (Ranch Hand): Current Dioxin >10 ppt, Initial Dioxin >143 ppt.

**Table F-2-10.**  
**Interaction Table for Malignant Systemic Neoplasms (Prostate)**

<b>a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> (Dioxin Category-by-Degreasing Chemical Exposure: Table 10-28)					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	Comparison	375	2.7		
	Background RH	181	0.0	--	--
	Low RH	94	4.3	0.92 (0.24,3.49)	0.907
	High RH	52	3.9	1.67 (0.30,9.45)	0.560
	Low plus High RH	146	4.1	1.09 (0.33,3.58)	0.889
<b>Yes</b>	Comparison	687	1.8		
	Background RH	191	2.6	1.24 (0.40,3.79)	0.708
	Low RH	161	1.2	0.37 (0.08,1.78)	0.213
	High RH	207	1.0	0.47 (0.10,2.26)	0.348
	Low plus High RH	368	1.1	0.41 (0.12,1.39)	0.152

<b>b) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-28)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	152	0.0	1.95 (1.07,3.53)	0.029
	Medium	111	3.6		
	High	64	3.1		
<b>Yes</b>	Low	141	2.1	0.69 (0.40,1.19)	0.187
	Medium	185	2.2		
	High	233	0.9		

<b>c) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-28)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	147	0.0	1.85 (1.09,3.16)	0.024
	Medium	115	2.6		
	High	65	4.6		
<b>Yes</b>	Low	151	2.7	0.81 (0.54,1.20)	0.289
	Medium	177	1.1		
	High	231	1.3		

**Table F-2-10. (Continued)**  
**Interaction Table for Malignant Systemic Neoplasms (Prostate)**

<b>d) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-28)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	147	0.0	1.74 (0.99,3.05)	0.053
	Medium	115	2.6		
	High	65	4.6		
<b>Yes</b>	Low	150	2.7	0.76 (0.49,1.16)	0.201
	Medium	177	1.1		
	High	231	1.3		

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

--: Adjusted relative risk, confidence interval, and p-value not presented due to the sparse number of abnormalities.

Note: Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤10 ppt.

Background (Ranch Hand): Current Dioxin ≤10 ppt.

Low (Ranch Hand): Current Dioxin >10 ppt, 10 ppt < Initial Dioxin ≤143 ppt.

High (Ranch Hand): Current Dioxin >10 ppt, Initial Dioxin >143 ppt.

Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.

**Table F-2-11.**  
**Interaction Table for Any Skin or Systemic Neoplasms**

<b>a) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Eye Color: Table 10-38)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Brown</b>	Low	78	47.4	0.90 (0.76,1.06)	0.213
	Medium	97	41.2		
	High	110	31.8		
<b>Hazel or Green</b>	Low	81	40.7	1.24 (1.03,1.50)	0.022
	Medium	82	53.7		
	High	79	55.7		
<b>Gray or Blue</b>	Low	132	46.2	0.90 (0.77,1.04)	0.154
	Medium	108	51.9		
	High	106	34.9		

<b>b) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Eye Color: Table 10-38)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Yes</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>Brown</b>	Low	81	49.4	0.90 (0.78,1.05)	0.180
	Medium	95	36.8		
	High	109	33.9		
<b>Hazel or Green</b>	Low	83	41.0	1.22 (1.04,1.43)	0.014
	Medium	83	50.6		
	High	76	59.2		
<b>Gray or Blue</b>	Low	132	46.2	0.94 (0.83,1.07)	0.385
	Medium	106	46.2		
	High	108	40.7		

**Table F-2-11. (Continued)**  
**Interaction Table for Any Skin or Systemic Neoplasms**

c) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED (Current Dioxin-by-Eye Color: Table 10-38)					
Current Dioxin Category Summary Statistics				Analysis Results for Log <sub>2</sub> (Current Dioxin + 1)	
Stratum	Current Dioxin	n	Percent Yes	Adjusted Relative Risk (95% C.I.) <sup>a</sup>	p-Value
Brown	Low	81	49.4	0.86 (0.74,1.00)	0.055
	Medium	95	36.8		
	High	109	33.9		
Hazel or Green	Low	82	41.5	1.16 (0.98,1.36)	0.087
	Medium	83	50.6		
	High	76	59.2		
Gray or Blue	Low	132	46.2	0.91 (0.80,1.04)	0.186
	Medium	106	46.2		
	High	108	40.7		

<sup>a</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 4: Low = ≤8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.

Models 5 and 6: Low = ≤46 ppq; Medium = >46-128 ppq; High = >128 ppq.



**Table F-2-12.**  
**Interaction Table for Prostate-Specific Antigen (ng/ml)**  
**(Continuous)**

<b>a) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED</b> (Group-by-Insecticide Exposure: Table 10-40)						
<b>Stratum</b>	<b>Occupational Category</b>	<b>Group</b>	<b>n</b>	<b>Adjusted Mean<sup>a</sup></b>	<b>Difference of Adjusted Means (95% C.I.)<sup>b</sup></b>	<b>p-Value<sup>c</sup></b>
<i>No</i>	<i>All</i>	<i>Ranch Hand</i>	<i>213</i>	<i>0.943</i>	<i>-0.161 --</i>	<i>0.012</i>
		<i>Comparison</i>	<i>455</i>	<i>1.104</i>		
<i>Yes</i>	<i>All</i>	<i>Ranch Hand</i>	<i>687</i>	<i>1.087</i>	<i>0.063 --</i>	<i>0.152</i>
		<i>Comparison</i>	<i>768</i>	<i>1.024</i>		
<i>No</i>	<i>Officer</i>	<i>Ranch Hand</i>	<i>79</i>	<i>0.934</i>	<i>-0.258 --</i>	<i>0.018</i>
		<i>Comparison</i>	<i>160</i>	<i>1.192</i>		
	<i>Enlisted Flyer</i>	<i>Ranch Hand</i>	<i>30</i>	<i>1.052</i>	<i>-0.157 --</i>	<i>0.386</i>
		<i>Comparison</i>	<i>77</i>	<i>1.208</i>		
	<i>Enlisted Groundcrew</i>	<i>Ranch Hand</i>	<i>104</i>	<i>0.899</i>	<i>-0.093 --</i>	<i>0.268</i>
		<i>Comparison</i>	<i>218</i>	<i>0.992</i>		
<i>Yes</i>	<i>Officer</i>	<i>Ranch Hand</i>	<i>269</i>	<i>1.225</i>	<i>0.118 --</i>	<i>0.101</i>
		<i>Comparison</i>	<i>316</i>	<i>1.107</i>		
	<i>Enlisted Flyer</i>	<i>Ranch Hand</i>	<i>121</i>	<i>1.157</i>	<i>0.047 --</i>	<i>0.668</i>
		<i>Comparison</i>	<i>121</i>	<i>1.111</i>		
	<i>Enlisted Groundcrew</i>	<i>Ranch Hand</i>	<i>297</i>	<i>0.921</i>	<i>0.022 --</i>	<i>0.690</i>
		<i>Comparison</i>	<i>331</i>	<i>0.900</i>		

<b>b) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED</b> (Initial Dioxin-by-Age: Table 10-40)					
<b>Initial Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Initial Dioxin)</b>	
<b>Stratum</b>	<b>Initial Dioxin</b>	<b>n</b>	<b>Adjusted Mean<sup>a</sup></b>	<b>Adjusted Slope (Std. Error)<sup>d</sup></b>	<b>p-Value</b>
<b>Born ≥ 1942</b>	Low	54	0.776	0.002 (0.037)	0.949
	Medium	71	0.664		
	High	108	0.781		
<b>Born &lt; 1942</b>	Low	113	1.267	-0.094 (0.039)	0.016
	Medium	95	1.072		
	High	60	0.898		



**Table F-2-12. (Continued)**  
**Interaction Table for Prostate-Specific Antigen (ng/ml)**  
**(Continuous)**

c) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED (Dioxin Category-by-Insecticide Exposure: Table 10-40)					
Stratum	Dioxin Category	n	Adjusted Mean <sup>a</sup>	Differences of Adjusted Means vs. Comparisons (95% C.I.) <sup>b</sup>	p-Value <sup>c</sup>
No	Comparison	379	1.099		
	Background RH	89	0.833	-0.266 --	0.001
	Low RH	47	0.939	-0.160 --	0.157
	High RH	66	0.962	-0.137 --	0.165
	Low plus High RH	113	0.951	-0.148 --	0.062
Yes	Comparison	635	1.009		
	Background RH	267	1.036	0.027 --	0.612
	Low RH	197	1.095	0.087 --	0.159
	High RH	179	1.004	-0.005 --	0.939
	Low plus High RH	376	1.050	0.041 --	0.408

<sup>a</sup> Transformed from natural logarithm scale.

<sup>b</sup> Difference of means after transformation to original scale; confidence interval on difference of means not presented because analysis was performed on natural logarithm scale.

<sup>c</sup> P-value is based on difference of means on natural logarithm scale.

<sup>d</sup> Slope and standard error based on natural logarithm of prostate-specific antigen versus log<sub>2</sub> initial dioxin.

Note: Analysis based on measurements at or above 0.2 ng/ml (sensitivity limit) only.

Model 2: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

**Table F-2-13.**  
**Interaction Table for Prostate-Specific Antigen**  
**(Discrete)**

a) MODEL 1: RANCH HANDS VS. COMPARISONS — ADJUSTED (Group-by-Lifetime Cigarette Smoking History: Table 10-41)						
Stratum	Occupational Category	Group	n	Percent Abnormal	Adj. Relative Risk (95% C.I.)	p-Value
0 Pack-years	All	Ranch Hand	254	3.9	0.85 (0.37,1.96)	0.706
		Comparison	353	4.8		
>0-10 Pack-years	All	Ranch Hand	296	4.7	1.16 (0.55,2.44)	0.691
		Comparison	384	5.0		
>10 Pack-years	All	Ranch Hand	392	2.3	0.47 (0.21,1.07)	0.073
		Comparison	540	4.8		
0 Pack-years	Officer	Ranch Hand	131	4.6	0.97 (0.40,2.35)	0.944
		Comparison	194	5.7		
	Enlisted Flyer	Ranch Hand	25	4.0	0.84 (0.23,3.04)	0.790
		Comparison	27	3.7		
	Enlisted Groundcrew	Ranch Hand	98	3.1	0.53 (0.16,1.80)	0.311
		Comparison	132	3.8		
>0-10 Pack-years	Officer	Ranch Hand	95	7.4	1.43 (0.57,3.61)	0.443
		Comparison	142	7.0		
	Enlisted Flyer	Ranch Hand	52	5.8	1.24 (0.42,3.70)	0.696
		Comparison	61	8.2		
	Enlisted Groundcrew	Ranch Hand	149	2.7	0.79 (0.28,2.27)	0.663
		Comparison	181	2.2		
>10 Pack-years	Officer	Ranch Hand	134	3.0	0.58 (0.22,1.53)	0.271
		Comparison	166	4.8		
	Enlisted Flyer	Ranch Hand	83	4.8	0.50 (0.16,1.59)	0.240
		Comparison	114	7.0		
	Enlisted Groundcrew	Ranch Hand	175	0.6	0.32 (0.10,1.00)	0.049
		Comparison	260	3.9		

**Table F-2-13. (Continued)**  
**Interaction Table for Prostate-Specific Antigen**  
**(Discrete)**

<b>b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED</b> (Dioxin Category-by-Insecticide Exposure: Table 10-41)					
<b>Stratum</b>	<b>Dioxin Category</b>	<b>n</b>	<b>Percent Abnormal</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>a</sup></b>	<b>p-Value</b>
<b>No</b>	<b>Comparison</b>	<b>391</b>	<b>6.7</b>		
	Background RH	90	1.1	0.07 (0.01,0.60)	0.015
	Low RH	48	2.1	0.14 (0.02,1.15)	0.066
	High RH	67	7.5	0.81 (0.26,2.54)	0.712
	Low plus High RH	115	5.2	0.45 (0.16,1.30)	0.141
<b>Yes</b>	<b>Comparison</b>	<b>653</b>	<b>4.0</b>		
	Background RH	275	2.6	0.47 (0.19,1.15)	0.100
	Low RH	202	6.4	1.23 (0.58,2.59)	0.593
	High RH	185	2.2	0.63 (0.21,1.92)	0.414
	Low plus High RH	387	4.4	1.01 (0.51,1.98)	0.986

<b>c) MODEL 4: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-41)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>e</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Abnormal</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	152	0.7	1.65 (1.04,2.61)	0.033
	Medium	111	7.2		
	High	64	4.7		
<b>Yes</b>	Low	140	2.1	0.88 (0.61,1.26)	0.492
	Medium	185	6.5		
	High	233	2.2		

**Table F-2-13. (Continued)**  
**Interaction Table for Prostate-Specific Antigen**  
**(Discrete)**

<b>d) MODEL 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-41)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Abnormal</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	147	0.7	1.68 (1.13,2.52)	0.011
	Medium	115	5.2		
	High	65	7.7		
<b>Yes</b>	Low	150	2.7	0.91 (0.66,1.24)	0.550
	Medium	177	5.1		
	High	231	3.0		

<b>e) MODEL 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED</b> (Current Dioxin-by-Degreasing Chemical Exposure: Table 10-41)					
<b>Current Dioxin Category Summary Statistics</b>				<b>Analysis Results for Log<sub>2</sub> (Current Dioxin + 1)</b>	
<b>Stratum</b>	<b>Current Dioxin</b>	<b>n</b>	<b>Percent Abnormal</b>	<b>Adjusted Relative Risk (95% C.I.)<sup>b</sup></b>	<b>p-Value</b>
<b>No</b>	Low	147	0.7	1.61 (1.06,2.44)	0.025
	Medium	115	5.2		
	High	65	7.7		
<b>Yes</b>	Low	149	2.7	0.87 (0.62,1.22)	0.411
	Medium	177	5.1		
	High	231	3.0		

<sup>a</sup> Relative risk and confidence interval relative to Comparisons.

<sup>b</sup> Relative risk for a twofold increase in current dioxin.

Note: Model 3: RH = Ranch Hand.

Comparison: Current Dioxin ≤ 10 ppt.

Background (Ranch Hand): Current Dioxin ≤ 10 ppt.

Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.

High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Model 4: Low = ≤ 8.1 ppt; Medium = > 8.1-20.5 ppt; High = > 20.5 ppt.

Models 5 and 6: Low = ≤ 46 ppq; Medium = > 46-128 ppq; High = > 128 ppq.